SC22/WG21/N1195
J16/99-0018
17 April, 1999
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J16 Meeting No. 28
WG21 Meeting No. 23
11-16 April, 1999

Record of Discussions

The Shelbourne Hotel
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Dublin 2
Ireland
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WG21 Meeting, Sunday, 11 April, 1999

1. Opening and introductions

Plum called the meeting to order at 18:01BST, 11 April, 1999.

1.1 Welcome from host

O'Riordan welcomed everyone to The Shelbourne Hotel, Dublin and Ireland. He will be contactable by mobile phone on +353 872 454 972. There will be an ethernet Intranet (provided by Simonsen). O'Riordan also has provided local ISP dialup presence.

1.2 Roll call of technical experts

In attendance were:

Name	Affiliation
Klarer, Robert	Canada
Schmeiser, Jamie	Canada
Sutter, Herb	Canada (head of delegation)
Plum, Tom	Convener WG21
Kristoffersen, Jan	Denmark
Simonsen, Keld	Denmark (head of delegation)
Bonnard, Valentin	France
Schumacher, Georges	France

Lextrait, Vincent	France (head of delegation)
Josuttis, Nico	Germany
Kuhl, Dietmar	Germany (head of delegation)
Fitzpatrick, Liam	Ireland
O'Riordan, Martin	Ireland (head of delegation)
Fukutomi, Hiroshi	Japan
Obata, Masaya	Japan
Hayasida, Seiji	Japan (head of delegation)
Goldthwaite, Lois	UK
Radford, Mark	UK
Glassborow, Francis	UK (head of delegation)
Corfield, Sean	UK, Secretary J16
Benito, John	USA
Dawes, Beman	USA
Stroustrup, Bjarne	USA
Nelson, Clark	USA (head of delegation)
Clamage, Steve	USA, Chair J16
Koenig, Andrew	USA, Project Editor

1.3 Select meeting chair

Plum was acclaimed.

1.4 Select meeting secretary

Corfield acted as secretary.

1.5 Select language

Plum nominated English. Approved by acclamation.

1.6 Adopt agenda

The agenda, N1180 = 99-0003, was adopted by acclamation.

1.7 Select drafting committee

Plum suggested selecting a drafting committee in case we need to draft any motions. O'Riordan, Klarer, Kuhl volunteered.

1.8 Approve minutes from previous meeting

Deferred to the joint meeting since the minutes included both WG21 and J16 meetings.

1.9 Review action items from previous meeting

There were no outstanding action items.

1.10 Recognise documents

O'Riordan noted that N1183 (Core Issues List) was marked "unofficial" on the web site. Plum suggested deferring this to the joint meeting. Someone pointed out that N1179 is in the HTML mailing but not in the PDF mailing - Plum suggested they raise this with Miller in the joint meeting.

2. Status, liaison and action item reports

These were mostly deferred to the joint meeting except as noted below.

2.2.2 SC22/WG11 (Binding Techniques) report

Plum noted that one of the SC22 documents distributed for comment gave only a day for feedback. It was about the CORBA/C++ mapping and generated some discussion on the reflector. O'Riordan has some information about the mapping but was unable to get representatives from IONA to speak at this meeting. O'Riordan doesn't think we have enough material to organize a technical session at this meeting. Kuhl suggested that we do need to review the mapping fairly urgently, at next meeting at the latest. Dawes asked what action WG21 can actually take regarding improving OMG's specification? Kuhl believes that we can put pressure on OMG to change the mapping. Plum said we could offer to help OMG revise the specification. There was some discussion about interaction between the two standards bodies. Stroustrup said we should try to run a technical session because it is an important issue. O'Riordan gave some examples of problems with the CORBA mapping. Simonsen said we could produce some guidelines for other groups who want to produce C++ bindings. Plum said if there are enough people within J16 who are interested in working on a new binding, then we could create an ad hoc group and approach OMG. Stroustrup suggested running a "birds of a feather" session this time to gauge interest and, if desired, run a technical session in Kona in October. Plum asked O'Riordan to raise this issue in the joint meeting.

3. New business

3.1 Defect Report procedures

Dawes reported that there are about 130 issues on the Library issues list. He needs guidance on how to dispose of these three categories:

- "READY": agreed as a defect, proposed solution/resolution has been stable for six months.
- "NAD": agreed as "not a defect", rationale has been stable for six months.
- "DUP": about half a dozen issues are duplicates of other issues on the list.

Koenig and others suggested that the LWG present the agreed defects to full committee and see whether an NB will go forward with it. Plum said we should ensure we use the process we agreed in Nice. Glassborow is concerned that we should make our agreed resolutions public once we have reached consensus. Koenig agreed and said it is important that we do three things at this meeting:

- Make a public statement on what we intend to do about DRs.
- Resolve to take action on at least one technical issue (to show we are making progress).
- Publish an informal statement of intent regarding DRs that we have consensus on solutions for.

Sutter suggested that someone should reiterate the agreed DR procedure in the joint meeting. Plum noted we have no one to speak for Core WG at this meeting. This will be raised in joint session. O'Riordan volunteered to chair Core if no one else is available.

Simonsen commented on his experience with handling DRs in WG14 and WG15.

3.2 Future meeting schedules

Deferred to 5.3.

3.3 NP status and planning

The Performance NP proposal passed, so we should start to organize this project at this meeting. Kehoe will chair the Performance WG.

Overall we will break into three WGs: Core (expected to be chaired by O'Riordan, Vandevoorde), Library (chaired by Dawes), Performance (chaired by Kehoe). A straw poll of attendance for those three WGs shows 7, 9 and 6 (respectively) amongst WG21 attendees.

4. Review and approve resolutions and issues

There were no resolutions to approve nor any outstanding issues to review.

5. Closing process

5.1 Select chair for next meeting

Plum agreed to chair the Kona meeting.

5.2 Establish next agenda

Plum asked for any additional issues, otherwise it will be the same as this meeting.

5.3 Future meetings

Plum noted that official invites have yet to go out.

The next meeting will be in Hawaii, 20-26 October 99. It will be a five day meeting, held jointly with WG14. Plum noted WG14 are meeting 18-22 October and our timescales had been agreed with WG14. Plum said the hotel would be south of Kona this time which will avoid the "Ironman" event on the middle weekend! The meeting will be held at the Keauhau Hotel, run by the Aston Group.

Japan has invited WG21 to Tokyo for April 2000. Denmark has also offered to host that meeting. Plum asked if Denmark would host April 2001 - Simonsen said this should be no problem. Some concerns were voiced over a mainland US location in the near future. There is also the issue of co-locating with WG14 - Benito said WG14 do not have meetings scheduled that far out yet. The October 2000 meeting should be in mainland North America, perhaps East Coast or more central, Chicago area or somewhere in Texas.

5.4 Future mailings

Deferred to joint session.

5.5 Assign document numbers

There were none to assign.

5.6 Review action items

There were no action items to review.

5.7 Any other business

No-one had any other business.

5.8 Thanks to host

WG21 thanked O'Riordan for organizing this meeting.

5.9 Adjournment

Plum suggested WG21 recess at this point in case we need to reconvene later in the week.

WG21 recessed at 19:05BST.

WG21 reconvened after the J16 meeting adjourned on Friday 16 April.

Plum moved to adjourn at 09:48BST on Friday 16 April.

WG21: Unanimous in favor.

WG21+J16 Meeting, 12-16 April, 1999

1. Opening activities

Clamage opened the meeting at 9:14BST on Monday 12 April 1999.

1.1 Opening comments

1.2 Introductions

Clamage introduced the chair, WG21 convener and vice-chair. Everyone then introduced themselves.

1.3 Membership, voting rights, and procedures for the meeting

Clamage explained voting procedures. Miller circulated the membership list and J16 attendance list and explained the document numbering.

O'Riordan explained the facilities for the meeting, breakout rooms, printing facilities, reception (at 7pm on Thursday 15 April).

1.4 Agenda review and approval

It was noted that the J16 document number should be corrected from "90-0004" to "99-0004". O'Riordan explained that we cannot meet in the ballroom on Thursday. Clamage suggested swapping the proposed Wednesday and Thursday agenda sessions.

Motion by Charney/Dawes to approve N1181 = 99-0004 with the Wednesday & Thursday sessions swapped as the agenda for this meeting:

J16: Lots in favor, none opposed, none abstained.

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.

No documents were ready at this point. The WGs will be as follows: Core, Library, Performance. None of the Core chairs were present. Clamage asked for a volunteer to run Core. Miller volunteered.

Rough estimates of attendance at WGs:

- Core: 12 - room 112.
- Library: 14 - The Great Room.
- Performance: 15 - annex of The Great Room.

WG progress reports: Dawes said LWG will be working on the issues list and looking at a couple of papers. LWG will discuss possible NPs for library extensions. There will also be a "boost" subgroup meeting at some point (Dawes explained what the Boost project entailed: an ad hoc project to design, build and review possible components for a future version of the Standard Library). Kehoe said PWG will work on the four sections of the TR to produce outlines for content. Miller said CWG will look at the issues list, in particular those that have consensus on resolution with a view to drafting wording for the resolutions.

1.6 Approval of the minutes of the previous meeting

Motion by Sutter/Josuttis to approve N1170 = 98-0027 as the minutes of the previous meeting:

J16: Lots in favor, none opposed, none abstained.

1.7 Report on the WG21 Sunday meeting

Plum summarized the WG21 meeting. Plum said there was interest in discussing the C++ binding to CORBA. If there is sufficient interest within J16, we could create an ad hoc group to work on a new binding. 13 people in J16 expressed interest in working on this. Ball asked whether OMG had approached J16. Plum said no. Charney said he believes that OMG would be receptive to help. Plum asked anyone who had contacts within OMG to raise the issue. Ball thinks that Sun would not be keen to involve ISO in OMG issues - ISO is perceived to be slow and complex in comparison. Plum said he did not anticipate any official ISO procedures as this help would be just an informal group. Stroustrup asked for the reference for the document that started this discussion. O'Riordan said it was an ITU SG10 document on middleware that mentions CORBA and WG21 were asked for comments.

Plum then discussed the October 2000 meeting. Plum asked for a couple of volunteers to host this meeting, a five day session in October 2000. Crowfoot said he would ask his company Xerox since they had offered to host the July meeting that was cancelled when we changed from a three to two meeting schedule. Sutter said IBM might be interested. This would place the meeting in Rochester or Toronto.

Plum said the October 1999 meeting will be in Kona, HI, the April 2000 meeting will be in Tokyo, Japan, the October 2000 meeting will be in East Coast USA somewhere and the.April 2001 meeting will be in Copenhagen, Denmark.

Plum then discussed the Kona, HI meeting. Information is yet to be sent out. The room rate should be around $100. Plum noted the restaurant is run by Sam Choy (a famous Hawaii chef).

Plum then discussed the DR process. He referred to the diagram in the minutes from Nice. The WGs have been producing I and P items under Dawes and Gibbons. comp.std.c++ is almost ready to publish a process for accepting issues. We are at the stage where WGs are ready to bring P items (proposed DRs) to the full committee. This will be part of the Wednesday process for J16 to filter the P items. From there, items should move quickly through the Editor (becoming actual Defect Reports) to the convener (WG21). From there to the WG21 committee where they should be voted on as a T item (tentatively resolved). Miller asked for clarification that we would not raise issues as DRs until we have suitable resolutions (or rationales for rejections). Plum agreed, but this contrasts with issues raised by NBs as part of the official process where we must follow ISO process (because we won't necessarily have possible resolutions). Furthermore, any issues whose resolution would cause a wording change in the Standard must be processed as DRs. Plum then explained that even issues which require no change must generate a Record of Response document, if the issue was raised by an NB as a formal issue. Miller asked about timescales. Plum said ISO requires a response within two years of the DR being raised.

Plum said the committee will address votes on DRs on Wednesday. Corfield wanted confirmation that full session would start in the morning. Clamage confirmed that we need to ensure that full session has plenty of time in case issues are controversial. Miller said the AFNOR list of issues had been folded into the CWG and LWG lists. These would only be official DRs if AFNOR submitted them to the Convener - we would prefer to work through them within the committee.

Koenig said we should decide when we intend to produce a TC since we are only allowed a limited number of TCs before we have to publish an entire new standard. Koenig suggested we agree a method of publishing an unofficial statement of intent on issues that will become part of the TC. Dawes asked if the public web site and issues lists was enough. Koenig said he feels we need a little more public notice than this. Dawes asked if a publication date would satisfy Koenig's concerns. Koenig said it would satisfy one concern. Plum said that we should ensure we have only one document containing issues rather than multiple versions. General agreement. Koenig feels we need some official printed notice about this, pointing toward the web site document and explaining its significance.

Josuttis asked what exactly we were planning to do about the CORBA mapping. Plum said he had asked people to raise the issue through their companies to see whether OMG actually wants a J16 subgroup to help them. Sutter reminded Plum that we agreed to have a "birds of a feather" session on Monday night. Plum asked O'Riordan if he would host such a session. He said yes. Plum then asked for a show of hands of interest. About 25 people raised their hands. The session will be held at 8pm in The Great Room. Stroustrup reiterated Ball's concern about interaction between OMG and ISO - we should take this seriously.

Plum noted that NCITS has on their web site (http://www.ncits.org) an anti-trust notice that says at any NCITS-sponsored meeting, there should be no disparaging remarks about competitors' products.

Charney asked what happened about the few web sites that were unofficially publishing versions of the ISO C++ document. Clamage explained that NCITS had been notified and they were taking steps to shutdown those sites. Clamage said one site had already been shut down.

Then there was some discussion about whether the NCITS PDF differs from the PDF on our committee web sites. Apart from the cut'n'paste, there are believed to be one or two typographical changes. Then there was discussion about differences between the PDF and the HTML. Some people claim that section numbers differ but Dawes said no one has given him a concrete example.

Plum said the Digital Millennium Copyright Act, recently published, had guidelines for companies with web sites regarding how to process infringement of copyright complaints. He will forward the relevant memo to the c++std-admin reflector.

Clamage said that at the recent NCITS meeting, it was noted that the sales of the $18 PDF were "higher than expected". Plum feels that even a few thousand sales is low for just what this document provides and that we should all encourage people to buy it.

1.8 Liaison reports

Benito reported on WG11's status. He said the FCD was voted on in February, and the FDIS is to be published shortly.

Simonsen said WG20 are working on three drafts: the Sorting FCD ballot has just closed, the Locale FCD ballot is closing this month and the Internationalization API (with a C++ binding) WD. Simonsen asked committee members to review the documents. Dawes said the API is an issue on the LWG list. The NP proposal passed for external character representation. This will have mappings for C++, Java and so on with a common subset for various languages.

Simonsen reported unofficially on the Posix committee. He said that they are aiming to produce one document coordinating the current multiple specifications.

1.9 New business requiring actions by the committee

Clamage said there will be a US Tag meeting at the end of this J16 meeting. There are 17 voting members present so there should be quorum. This is scheduled for after close of process on Friday.

2. Organize subgroups, establish working procedures.

This had been done (under 1.5).

J16 recessed at 11:04BST on Monday 12 April.

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

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

4. WG sessions continue.

5. General session.

J16 reconvened at 8:55BST on Wednesday 14 April. Clamage explained that there will be a US TAG meeting to ratify the ballot response to JTC1. This is identical to the previously seen letter ballot.

Simonsen explained the network facilities for the meeting. O'Riordan explained that WGs would be using the Adams suite tomorrow.

5.1 WG status and progress reports.

This was combined with 5.2.

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

Dawes presented the issues that the group wants to bring forward as DRs. The document is N1184 = 99-0007 (in the pre-Dublin mailing). He said 6 items are duplicates (marked DUP in the document) and will not be brought forward for a vote. He said 16 items are marked NAD - Not A Defect - and 15 of these have rationales and will be recorded. He noted that item 96 is now considered a defect and is being worked on. He said 43 items are marked as READY and will be forwarded to Editor, with a request to put them forward as DRs. Dawes said these items are "stable", that is, the issues have been on the list for several meetings and the proposed resolutions have not changed for at least one meeting.

Dawes highlighted a couple of issues which the LWG is having trouble with.

- Issue 69: must the elements of vector<> be contiguous? The answer is yes and is not controversial. What is causing difficulty is arriving at the correct standardese to specify "contiguous". Bonnard asked why the LWG did not adopt the requirement stated for valarray<>. Dawes explained that LWG had reviewed and rejected all the definitions already used elsewhere in the Standard.
- Issue 96: vector<bool> is not a container. Initially it was felt that this was not a defect but after a lot of discussion, LWG decided to review this further. For example, see N1185 (in the pre-Dublin meeting). Dawes outlined some of possible resolutions that were discussed and rejected.

Plum proposed wording for the motion: "Move that we put forward those issues in N1184 that are marked as READY".

Vandevoorde explained the progress made on issues from N1183 = 99-0006. He said 13 issues are now ready to be put forward as DRs. He noted that two new issues were now regarded as Not A Defect (giving 11 in total). Corfield asked whether what was being put forward matched the pre-Dublin document? Vandevoorde clarified that some issues had wording changes at this meeting.

Plum raised concern that N1183 was not in the PDF version of the pre-Dublin mailing. It was in the HTML version. Kehoe agreed to look into this.

Vandevoorde presented an issue that the CWG needs guidance on.

- Issue 45: Refer to N1186 = 99-0009. Abrahams asked why the CWG had not attempted to fix just the definition problem rather than make it a friend. Koenig suggested just making the nested class a "member". Vandevoorde said that doesn't work for deeply nested classes - by making them friends, it solves that problem. Miller explained a bit of background about why nested classes are sort of second-class citizens. Plum asked what workaround can be used until compilers catch up with this resolution - can we grant this friendship explicitly? The answer was "yes, in general". Plum elaborated: his concern is that compilers recently began to enforce the access rules and now we want to relax them again. Ball objected to changing the rules on the grounds that there is a workaround and this is a pure extension. Glassborow also spoke against the proposal for this reason. There was a lot more discussion about different approaches. Ball said the proposal seems too big a change.

Plum talked about the context in which we are working. He said we hope that compiler vendors have seen the IS as an important enough target to apply resources to become compliant. We also hope that users think the IS is important enough to demand compliance of vendors. We should therefore encourage this. Plum said we should fix obvious defects, however if users have programmed to the IS and vendors have worked to be compliant, then we should not make changes that undermine this. In particular, we shouldn't be attempting to make the IS 'better' - we should be very conservative about changes. Therefore we should consider this proposal in that light. Glassborow also said we should fix obvious bugs, e.g., incorrect examples in the IS, but should not be extending the language.

Vandevoorde then presented new issues with consensus as Not A Defect: issues 42 and 14. There was no discussion about these. He then presented issues with consensus on action:

- Issue 41: Miller explained the problem, a miswording in the footnotes.
- Issue 33: Abrahams asked what discussion there was about the impact of the proposed change. Vandevoorde said there was no in-depth discussion but people felt it was what users would expect. Miller said the problem was that the rules worked for a single function but if someone adds an overload, your program would stop working! Ball said Sun already implemented name lookup this way.
- Issue 40: Miller said the current wording is somewhat contradictory. The proposed change differs from Miller's original paper on this.
- Issue 65: Correcting an example.
- Issue 35: Recommend adopting N1191 = 99-0014 except that it should exclude unions. Vandevoorde said that this raises another issue to do with default initialization which the CWG will continue to work on for the next meeting. Miller said that the change invalidates a comment elsewhere in the IS that says 'int()' is a default initialization - this proposal makes it a 'value initialization'. Ball asked for the issue to be delayed. Koenig said that we need to express our intent to fix this as soon as possible.

  WG21+J16 straw vote on basic proposal: there were no objections.

  WG21+J16 straw vote on additional change to do with trailing array initialization: 15 in favor, 2 opposed.

  WG21 straw vote on this additional change: 5 in favor, none opposed, 1 abstained [Secretary's note: there should be 2 more voting NBs].

- Issue 48: Correct 'potentially evaluated' definition to clarify whether a definition is needed for a static integral constant member.
- Issue 32: no objections to resolution in N1186 = 99-0009.
- Issue 49: The IS effectively requires runtime template instantiation so this proposal makes illegal the code that would cause it.
- Issue 30: template is required in several situations but the IS doesn't say where it is harmlessly allowed. The proposal is to follow the example of typename.
- Issue 22: no objections to resolution in N1186 = 99-0009.
- Issue 24: no objections to resolution in N1186 = 99-0009.
- Issue 44: Ball thought that the example in question should be legal. Corfield felt that the example and the paragraph being changed were unrelated. Vandevoorde agreed to take this back to the CWG.
- Issue 25: Clarifying exception specification treatment for pointers to members and references. Abrahams was concerned that we are already looking at interactions between exception specifications and types. Bonnard commented that if we integrate exception specifications into the type system we'll have to change this again. O'Riordan said that this proposal is to correct a minor bug in the IS as it stands whereas the proposal to integrate exception specifications into the type system is an extension to be considered later.

Kehoe reported on what the PWG have been doing. The subgroups have been focusing on locales and exception handling. He hopes by Friday to have initial reports on these two sections.

J16 recessed at 11:25BST on Wednesday 14 April.

6. 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.

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

8. Review of the meeting

Clamage reconvened J16 at 08:48BST on Friday 16 April.

Clamage commended O'Riordan's organization of the reception. Applause.

Clamage said we have made excellent progress at this meeting.

Koenig asked that we review what happens next to DRs. Plum reiterated the process discussed in Nice.

8.1 Formal motions, including DRs to be resolved.

1. Motion by Miller/Vandevoorde:

> Move that we submit to the Project Editor as Potential Defect Reports all those issues in N1196 = 99-0019, "Core WG Defect Resolutions".

Vandvoorde noted that this document contains one less issue than presented to the meeting (issue 44 has been taken back to the CWG).

O'Riordan noted that in issue 41, the last word, "mem-initializer", should be italics. It was accepted that this was editorial.

> **Motion passed J16: 21 in favor, none opposed, none abstained.**

Plum noted that the "committee" in the flowchart for this vote is J16. He said that any WG21 vote is purely advisory but that we could take the vote anyway.

> **WG21 advisory vote: 8 in favor, none opposed, none abstained.**

2. Motion by Corfield/Dawes:

> Move that we submit to the Project Editor as Potential Defect Reports all those issues with a status of "Ready" in N1184 = 99-0007, "Library Issues List (Revision 6)".

> **Motion passed J16: 21 in favor, none opposed, none abstained.**

> **WG21 advisory vote: 8 in favor, none opposed, none abstained.**

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

Koenig asked in what form he should pass on the DRs? Then he asked for guidance on how to publish the TC. He suggested publishing a revised Standard with change bars. O'Riordan asked how he would handle any subsequent TC? Koenig felt that differences from the Standard would be more helpful, with notes saying which TC the changed occurred. Kuhl asked how the TC would be published: paper or electronic? Plum said that we should not be too concerned with how things have been published in the past because we are capable of electronic publication and that is the way we are moving (within the ISO/ANSI framework). Plum feels it is worth keeping a change list document and making it public - as Koenig suggested. This document would serve an important purpose in explaining why we made those changes. Plum commented that the way the LWG motion was done seemed a better approach because the issues brought forward were all in the pre-meeting mailing and did not change at the meeting. Plum also feels this would make it easier to refer back to the process at some future date.

Miller said we need to ask ANSI how they would deal with a replacement Standard. O'Riordan agreed that simply replacing the IS with TC1 would be practical. He also felt that the changes document should be publicly available for everyone who already has the original Standard. Nelson said that the issue list already exists so we will have these change documents. Dawes said that his intention was to maintain DR status issues on the LWG issue list (LWG used to remove closed issues) so this list will be available on the web site throughout the cycle. O'Riordan suggested that we adopt the C approach of a Rationale document to accompany the TC but there did not seem much support for this.

Plum said most people who pay the high price for the paper copy of the standard sign up for the TC notification programme, and it is NBs' responsibility to duplicate the paper copy of any TCs. Plum said they might be happier with a change document instead of a replacement standard. He noted that they might also like the replacement document as something that can be sold to the same audience that bought the original.

Koenig noted that only one form could be definitive: either the troff of the Working Paper or the issue list, but not both. He will therefore maintain a WP and later generate a document with change bars which we must review against the issue lists to ensure we got it right. Plum said we are responsible for 'proving' that any revised document is exactly the sum of the original document plus the voted list of changes. Plum said Koenig needs to keep a list of all editorial changes that he applies to the document (that do not come from LWG or CWG issue lists). Koenig agreed. Koenig explained how he envisaged this working, as a bulk list of issues to be voted on just prior to voting on the TC.

Simonsen said SC22 vote on accepting TCs, not JTC1. After that vote, the TC can be made public. He said that the group can then put a revised document out (publicly).

Plum said he was officially notifying The Project Editor that the issues voted on at this meeting constitute a set of DRs. Plum said we could now get WG21 to vote to push the DRs forward but feels that we do not need to show such haste. He feels we should instead take that WG21 vote at Kona. There were no objections.

8.3 Issues delayed until Friday

Plum reported on the progress of the PWG. He has HTML for a rough draft of parts of the TR. Plum suggested putting it up on the web site as-is. The section on optimizing locales is missing but Stroustrup will provide that shortly. Plum asked whether people thought it was worth producing a paper copy for the post-Dublin mailing - he felt it wasn't worth it and we might attempt to do it for Kona. No one objected.

9. Plans for the future

9.1 Next meeting

The next meeting will be in Kona, HI on 20-26 October, 1999. Information about the meeting will be in the next mailing.

9.2 Mailings

The deadline for the post-Dublin mailing is 30 April. The deadline for the pre-Kona mailing is 31 August.

9.3 Following meetings

Plum said ITSCJ have invited WG21 to hold a meeting in Tokyo in April 2000. He's not sure of the exact dates but it's "a week later than usual". It's not certain yet whether WG14 will co-locate with WG21 at that meeting.

The offer of a meeting for October 2000 came from Crowfoot on behalf of Xerox, Klarer on behalf of IBM and Sutter on behalf of PeerDirect. This meeting will probably be in Toronto. WG14 will almost certainly co-locate with WG21 at this meeting.

Plum said we have a tentative invite from Denmark for April 2001.

Motion by Miller to thank O'Riordan as the host. Applause.

O'Riordan said that after ten years on the committee he was pleased to welcome us to his home territory.

Motion by Dawes/Vandevoorde to adjourn:

Motion passed WG21+J16: lots in favor, none opposed, none abstained.

Clamage adjourned the meeting at 9:47am.

Appendix A - J16 Attendance list

Name	Organization	M	T	W	Th	F
Koenig, Andrew	AT&T	V	V	V	V	V
Stroustrup, Bjarne	AT&T	A	A	A		
Peters, Jeff	Borland/Inprise	A	A	A	A	A
Schnell, Fabian	CAD-UL	A	A	A	A	A
Charney, Reg	Charney & Day	V	V	V	V	V
Comeau, Greg	Comeau Computing	V	V	V	V	V
Ward, Judy	Compaq Computer	V	V	V	V	V
Kehoe, Brendan	Cygnus Solutions	V	V	V	V	V
Becker, Pete	Dinkumware Ltd	V	V	V	V	V
Abrahams, David	Dragon Systems	A	A	A		
Jonsson, Fredrik	Ericsson	V	V	V	V	V
Vandevoorde, Daveed	Hewlett-Packard	V	V	V	V	V
Klarer, Robert	IBM	V	V	V	V	V
Schmeiser, Jamie	IBM	A	A	A	A	A
Nelson, Clark	Intel	V	V	V	V	V
Munch, Max	Lex, Hack & Associates	A	A	A	A	A
Corfield, Sean A	Object Consultancy Services Ltd	V	V	V		V
Colvin, Greg	Oracle	V	V	V	V	V
Sutter, Herb	PeerDirect Inc	V	V	V		
Benito, John	Perennial	V	V	V	V	V
Plum, Tom	Plum Hall	V	V	V	V	V
Fitzpatrick, Liam	Programming Research	A	A	A	A	
Spencer, Michael	Programming Research	V	V	V	V	V

Wilcox, Tom	Rational Software Corp	V	V	V	V	V
Pettersen, Bjorn	Rogue Wave	V	V	V	V	V
Dawes, Beman	Self	V	V	V	V	V
Wengler, Christian	SET Consulting Engineers Gmbh	A	A	A		
Miller, William M.	Software Emancipation Technology	V	V	V	V	V
Ball, Mike	Sun Microsystems	V	V	V	V	V
Clamage, Steve	Sun Microsystems	A	A	A	A	A
Crowfoot, Norm	Xerox Corporation	V	V	V	V	V
	Total voting	**22**	**22**	**22**	**20**	**21**
	Total attending	9	9	9	6	5
	Overall total	**31**	**31**	**31**	**26**	**26**