Minutes
ISO/IEC JTC1/SC22/WG21 Meeting No. 3
March 15, 1992

Cumberland Hotel
Marble Arch
London W1A 4RF UK

1 Opening and introductions
   Carter convened the meeting at 19:00 (UTC) on March 15, 1992. Saks was secretary.

1.1 Welcome from host
   Nell Martin of BSI welcomed the attendees.

1.2 Introductions and roll call of technical experts
   The attendance list is attached as appendix A.

1.3 Selection of meeting chair
   Brück suggested that Carter chair the meeting, and no one objected.

1.4 Selection of meeting secretary
   Carter suggested that Saks be permanent secretary for WG21. The committee applauded.

1.5 Select language
   Carter suggested that the committee conduct business in English, and no one objected.

1.6 Selection of drafting committee
   Carter asked for two volunteers to serve as the drafting committee for this meeting. Saks and LaJoie volunteered.

1.7 Adoption of agenda
   Carter submitted SD-0 == 90-0022 (revised March 4, 1992) as the meeting agenda, and no one objected.
1.7.1 Recognition of documents

Carter listed the temporarily numbered documents for this meeting:

LT-1, Note from Mike Sykes to Richard DeMorgan
LT-2, Convener responses to questions
LT-3, Database Language SQL: Intregator of CALS Data Repositories

1.8 Approval of minutes from previous meeting

Carter submitted the minutes of for approval.

Motion by Brück/LaJoie: "Move we approve the previous meeting minutes (N0103 = 92-0026)."

Motion passed: lots yes, 0 no.

2 Status, liaison and action item reports

2.1 Small group status reports

None.

2.2 Liaison reports

2.2.1 SC22 report

Carter had no news to report other than SC22 will meet next on August 24-28, 1992. Carter will attend, and present a report at WG21's meeting in November.

2.2.2 SC22/WG11, Language Independent Data Types report

Carter deferred this to the joint meeting with X3J16. He also noted that Brian Meek will deliver a talk on this topic just before lunch on Tuesday of the joint meeting.

2.2.3 SC22/WG14, C, report

Deferred to the joint meeting with X3J16.

2.2.4 SC22/WG15, POSIX, report

Deferred to the joint meeting with X3J16.

2.2.5 US C++ TAG, X3J16, report

Gautron wanted the footnote on page 1-1 of the working paper (N0100 = 92-0023) to refer to the C standard as an ISO document, not as an ANSI document. Plum agreed to pass this request to Shopiro. Stroustrup would prefer to see the acknowledgement of Kernighan and Ritchie retained.

Lenkov explained that X3J16 voted to ask X3 SPARC to convert C++ standardization to a type l project. SPARC approved the request and submitted it to X3 for formal approval. Lenkov expected
that approval before the next WG21 meeting in July.

2.3 Review action items from previous meetings (secretary)

See agenda (SD-0 = 92-00022, March 4, 1992).

Additional discussion at this meeting:

1. Stroustrup was to have written an article on implementing interna-tional character handling in C++. Stroustrup apologized that he hadn't written the article, and nor would he by the next meeting without help. No one offered to help and one objected. Plum said he had been discussing international character handling at other meetings and conferences, so the issues are already getting some publicity.

2. None.

3. None.

4. Carter must apply for an appropriate extension to WG21's WD (Working Draft) date. Lenkov added that the date for circulating the working draft document for public comment must be revised. He will determine a new date at the March '93 WG21/X3J16 meeting.

5. Shopyro asked if working paper should be an SD (standing document). Carter said yes.

6. None.

7. None.

8. Shopyro said that Kate McMillan of X3 told him that WG21 did not need X3's written permission to use the X3J16 base documents as WG21 base documents. However, Shopyro must still get permission from AT&T (the holder of the copyright for one of the base documents) to use the ISO standardization.

9. Gautron thanked Shopyro for an electronic copy of the working draft to translate to French. Plum noted that WG21 might need AT&T's permission to translate the working draft to other languages.

3 New Business

3.1 C++ container classes and SQL Abstract Data Types

In response to Sykes' note to DeMorgan (WG21/LT-1), Carter recommended sending courtesy copies of C++ mailings to the SC21/WG3 (SQL) convener and rapporteur. Stroustrup said there's already some informal communication between the C++ and SQL communities. Plum agreed to ask Clamage to add these people to WG21/X3J16 mailing list.

Carter also said he will write a letter to SC21/WG3 members inviting them to participate in WG21/X3J16 working groups.

3.1 Review Flow of Last Joint Meeting
Carter reviewed the voting procedures used at the last WG21/X3J16 meeting, namely that WG21 and X3J16 held separate votes for each formal motion. The alternative would be for X3J16 to vote on each formal motion, and then WG21 would vote to approve all X3J16 decisions.

Saks asked what the role of the WG21 drafting committee would be in this process. He said that X3J16 has not been putting all formal motions in writing before voting. He wanted the drafting committee to approve a written statement of the motion before each vote.

Lenkov thought the committee should continue to hold straw votes while in the committee of whole to gain the sense of the committee, and that written statements of the motion were not necessary for straw votes. He said formal votes should be written and reviewed by the drafting committee by Friday morning of the joint meeting, and the formal votes could be taken at that time.

Plum concurred, but warned that it may not be practical to delay voting on complex issues until the end of the week. It might take several iterations to get the wording right and for the committee to reach agreement. Resolutions should be written, reviewed and voted on the next morning.

3.2 Disposition of AFNOR C++ Position Paper

Gautron explained that the AFNOR C experts group no longer exists. So although the paper proposes an extension to C, the AFNOR C++ expert group offered to submit the paper to WG21. Carter in turn asked Gautron to simply convey the proposal to WG14, effectively bypassing WG21. Carter asked WG21 if any one objected to the way the paper was handled, and no one did.

3.3 Review Changes to WG21/N0008

Deferred to the joint meeting.

4 Review/approval of Resolutions, Action Items and Issues

See 5.6.

5 Closing Process

5.1 Select Chair for Next Meeting

Carter said he will be on his honeymoon and won't be at the next meeting. He suggested that WG21 pick a chair for the next meeting now, so Carter can send agenda to her before hand. LaJoie acceded to wishes of WG21 and agreed to chair the next meeting.

5.2 Next Agenda

None.

5.3 Future Meetings

Deferred to the joint meeting.

5.4 Mailings
Deferred to the joint meeting.

5.5 Document Number Assignment

Brück suggested assigning a permanent document number to LT-2.

5.6 Review Action Items

-- Plum will ask Shapiro to change page 1-1 of the Working Paper for dpANS C++ (N0100 = 92-0023) paper to refer to the appropriate ISO documents rather than ANSI documents.
-- Carter will write a letter to SC21/WG3 (SQL) members inviting them to participate in WG21/X3J16 working groups.
-- Carter will ask Clamage to assign number a permanent document number to LT-2.
-- Lenkov should ask a WG21/X3J16 member to act as liaison to SC21/WG3.
-- Shapiro must get written permission from AT&T to use the base document (90-0020) for ISO standardization, including permission for translation into languages other than English for use by national standards bodies.
-- Lenkov will explain to WG21/X3J16 that formal motions must be submitted in writing to Saks as secretary for recording and review by the drafting committee.

5.7 Thanks to host

WG21 applauded Neil Martin from BSI.

5.8 Adjournment

WG21 recessed 20:18 Sunday to reconvene in joint session Monday morning. See N0118 = 92-0041 for the time of adjournment on Friday, March 20.
Appendix A - Attendance

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>Hartinger, Roland</td>
<td>Germany*</td>
</tr>
<tr>
<td>Brück, Dag</td>
<td>Sweden*</td>
</tr>
<tr>
<td>Koenig, Andrew</td>
<td>Courtesy</td>
</tr>
<tr>
<td>LaJoie, Josee</td>
<td>Canada*</td>
</tr>
<tr>
<td>DeMorgan, Richard</td>
<td>UK</td>
</tr>
<tr>
<td>Rafter, Mark</td>
<td>UK*</td>
</tr>
<tr>
<td>Rumsby, Steve</td>
<td>UK</td>
</tr>
<tr>
<td>Knuttila, Kim</td>
<td>Canada</td>
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<tr>
<td>Lenkov, Dmitry</td>
<td>USA</td>
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<tr>
<td>Gautron, Phillipe</td>
<td>France*</td>
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<tr>
<td>Stroustrup, Bjarne</td>
<td>Courtesy</td>
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<tr>
<td>Martin, Neil</td>
<td>UK</td>
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<tr>
<td>Plum, Thomas</td>
<td>USA*</td>
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<tr>
<td>Johnson, E Andrew</td>
<td>USA</td>
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<tr>
<td>Plauger, P. J.</td>
<td>WG14 Convener</td>
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<tr>
<td>Shopiro, Jonathan</td>
<td>USA</td>
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<tr>
<td>Saks, Dan</td>
<td>Secretary</td>
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<tr>
<td>Carter, Steve</td>
<td>Convener</td>
</tr>
</tbody>
</table>

* = Head of Delegation

The addresses of attendees are as shown in SD-1 = 92-0001 except:

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