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## **Minutes of ISO WG21 Meeting, October 22, 2000**

### **1. Opening and introductions**

Plum called the meeting to order at 18:05 EDT on Sunday, October 22, 2000 at the Novotel Toronto Centre in Toronto, Ontario, Canada.

#### **1.1 Welcome from host**

Robert Klarer welcomed us and outlined arrangements for the week. The social event is at 7:30pm on Thursday.

#### **1.2 Roll call of technical experts**

In attendance were:

Matt Austern (USA)  
Steve Clamage (USA, J16 Chair)  
Beman Dawes (USA)  
Francis Glassborow (UK, HoD)  
Lois Goldthwaite (UK)  
Seiji Hayashida (Japan, HoD)  
Nicolai Josuttis (Germany)  
Robert Klarer (Canada)  
Andy Koenig (USA, Project Editor)  
Jan Kristofferson (Denmark, HoD)  
Dietmar Kühl (Germany, HoD)  
Jens Maurer (Germany)  
Clark Nelson (USA, HoD)  
Martin O'Riordan (Ireland, HoD)  
Tom Plum (Convenor)

Mark Radford (UK)  
Andy Sawyer (UK)  
Georges Schumacher (France, HoD)  
Herb Sutter (Canada, HoD)  
Jan Christiaan (J.C.) Van Winkel (Netherlands, HoD)  
Detlef Vollman (Switzerland, HoD)

There are ten countries represented at this meeting, which is a first for this committee.

### **1.3 Select meeting chair**

Plum by acclamation.

### **1.4 Select meeting secretary**

Sutter by acclamation.

### **1.5 Select language**

English was adopted.

### **1.6 Adopt agenda**

There were no new items. The agenda was adopted.

### **1.7 Select drafting committee**

Austern, Clamage, Koenig, Köhl, and Van Winkel were selected.

### **1.8 Approve minutes from previous meeting**

Approved by unanimous consent.

### **1.9 Review action items from previous meeting**

There were no individual action items.

### **1.10 Recognize documents**

None.

## **2. Status, liaison and action item reports**

### **2.1 Small group status reports**

## **2.2 Liaison Reports**

### **2.2.1 SC22 report**

Plum reported on the SC22 meeting in Nara, Japan. The biggest controversy was with respect to the internationalization work in WG20, whose work overlaps SC2. There is no need for us to get involved; our annex is very slightly divergent, and whenever the other groups decide on a consensus we can entertain an adjustment to match. O’Riordan has been appointed as project editor for the performance Technical Report.

The September 17-21, 2001 SC22 plenary will be on the Big Island in Hawaii.

The November 2001 JTC1 plenary will be on the Big Island in Hawaii.

### **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**

### *Defect Report procedures*

Issues that are already in the state “Ready” would ordinarily automatically become Defect Reports (DRs) during this meeting. Other issues with proposed resolutions that have been available since the last (Tokyo) meeting could also become DRs.

The goal is to approve the Technical Corrigendum by vote on the technical items at this meeting, and allow the project editor resolve the editorial details for last-minute polishing. This avoids the time and delay of having an extra letter ballot.

ISO rules require the TC to take a form similar to the issues list, with issue descriptions and resolutions. The project editor hopes to also generate for internal use a working draft representing an amended standard incorporating the TC changes. There will be effort made to avoid changing section and paragraph numbers.

### *Future meeting schedules*

The next WG21/J16 meetings are:

Copenhagen	April 29 - May 4, 2001
Seattle	October 21-26, 2001
Netherlands or Curaçao	April 2002

#### *Performance TR status and planning*

O'Riordan reported that the work on the performance TR has been sluggish, and that the purpose of the performance TR is now significantly threatened.

#### **4. Review and approve resolutions and issues**

None.

#### **5. Closing process**

##### **5.1 Select chair for next meeting**

Plum was selected.

##### **5.2 Establish next agenda**

We will have continuing work on DRs.

##### **5.3 Future meetings**

Deferred to Monday session.

##### **5.4 Future mailings**

Deferred to Monday session.

##### **5.5 Assign document numbers**

None.

##### **5.6 Review action items**

None.

##### **5.7 Any other business**

Josuttis raised the question of what happens after the TC. Some argued for working on a second TC only, some for beginning work on an extended standard. Koenig pointed out that even after the TC there is a problem in that the standard is not implementable because of, for example, the vector<bool> problem,

and such defects should not be left unaddressed; he opined that we should not open the floodgates for arbitrary extensions until we have discussed the nature of the direction we want to go, and should reach consensus on issues including our intentions for source and/or link backward compatibility with C++98 and compatibility with C99. O'Riordan said that it was possible to work on TCs and a new standard in parallel. Dawes said that the Library Working Group would probably like to begin allocating some limited time to answering such meta-questions as summarized by Koenig.

Plum pointed out that few if any vendors yet fully conform. Austern distinguished between conformance of core and library implementations; there are multiple fully conforming library implementations and multiple vendors are focusing on library performance.

Austern also noted that there is at least one library issue (allocators) that straddles the border of a defect and an extension but which probably ought to be addressed in TC2 under one label or the other. Josuttis suggested that having a second TC may open the scope of what might be possible, or perhaps having a TR for extensions.

O'Riordan reminded us that we have essentially placed a moratorium on considering any extensions, but that we've made a lot of progress and that bug fixing will continue essentially indefinitely and so we ought to relax the mindset against extensions or the language will stagnate; we also have C99's extensions to consider if we want to make C++ and C99 as compatible as possible.

Plum noted that the discussion was now getting into more technical considerations that ought to include J16 members. There was further discussion.

Nelson and others again suggested we relax the moratorium on considering extensions to make better use of reflector discussion (which has been lower lately). Koenig and Dawes suggested that if the working groups can finish their TC work smoothly by Wednesday, parts of Thursday could be used in working groups or in committee to talk about such issues. Koenig reported that Stroustrup has suggested we should find the right balance between working on the future and on minutiae.

## **5.8 Thanks to host**

The committee thanked the host.

## **5.9 Adjournment**

Meeting adjourned at 20:09 EDT.