

Document Number: X3J16/90-0028  
Date: April 13, 1990  
Reply to: Dan Saks

X3J16 Meeting No. 2  
March 12-16, 1990

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0. Opening Activities

The meeting was convened at 9:00 a.m. (EST) on Monday, March 12, 1990 by Dmitry Lenkov, convener and acting chair of X3J16. He has applied to X3 for appointment as chair.

The meeting was hosted by AT&T, represented by Peggy Quinn.

1. Electing a secretary and secretary assistants, if any  
Lenkov confirmed that Dan Saks (who tentatively volunteered at the last meeting) will be the secretary. Reg Charney offered to assist the secretary.

2. Agenda review and approval

Lenkov recommended several changes to the preliminary agenda for the meeting (90-0006). The revised agenda (90-0006R) was approved without objection, and appears as attachment 1 to these minutes.

3. Introductions

All attendees introduced themselves to the committee.

Lenkov circulated the current member list (89-0002) for corrections. Referring to a letter from Judith Bailey of X3 (90-0019), he explained who had voting rights. Specifically, anyone who intends to be a voting member and attended the first meeting of X3J16 could vote at this meeting. He urged those members who had not filed a subgroup membership application with X3 to do it before the next meeting, or risk losing their voting privileges.

Saks circulated an attendance list, asking attendees to indicate if they are voting. That list was circulated each day, and appears as attachment 2 to these minutes.

William (Mike) Miller volunteered to be Vice Chair. His appointment is subject to X3 approval.

4. Communication tools working group: report and actions items

The working group reported that it had been unable to identify a mechanism for electronic mail and conferencing that would be accessible to all members of X3J16. Dlugosz and Koenig shared different experiences and opinions with the committee. Plum expressed concern that any electronic communication be accessible to Europeans. After more discussion, the issue was returned to the working group for a single recommendation.

Insinga recalled from the previous meeting that only a few members of X3J16 didn't have access to Internet and that other members would try to get it for them. A show of hands indicated that only three or four people did not have such access. Lenkov called for volunteers to provide Internet gateways for those without.

5. X3J16 Internal Procedures

Lenkov (90-0003) asked the committee to consider approving his recommendations for X3J16 internal procedures (section 4.a).

Miller observed that the first recommendation (4.a.1. Procedure for making important decisions) was not very specific. Dlugosz and Koenig suggested it might not be good to resolve important issues at the meeting at which they are introduced. Several others thought the existing X3 rules were adequate.

Motion by Vasta/Dlugosz:

"Move we do not need any additional operating procedures beyond those required by X3."

Miller suggested the motion should apply to only 4.a.1 in 90-0003. Plum suggested that the motion be amended to a positive statement.

Vasta/Dlugosz amended their motion:

"Move that we accept item 4.a.1 in document 90-0003 as an additional operating procedure for X3J16."

Motion defeated: 1 yes, 24 no, 3 abstain.

The committee discussed the next item (4.a.2. Conferences) of 90-0003. Although Schwarz thought X3J16 should plan public meetings (though not necessarily as part of its working meetings), many others felt that existing C++ conferences provide adequate opportunity for X3J16 members to interact with the public. No action was taken.

Miller acknowledged his responsibility for public relations. He asked for the names of people interested in giving talks on the state of X3J16's efforts.

The committee briefly discussed the last item (4.a.3. Position papers) and took no action.

Koenig offered the following as a voting procedure:

"In any vote that selects among more than two alternatives, voters are not limited only to a single alternative, but may vote for whatever alternatives they are willing to accept. The winning alternative is the one that receives the most votes."

Several spoke in favor of this proposal. Schwarz proposed an alternative:

"In a multiway vote, discard the choice with the least votes and revote."

Roskind argued against Schwarz's proposal by counterexample.

Motion by Plum/Vasta:

"Move we allow everyone in the room to vote."

Motion defeated: 0 yes, lots no, 5 abstain

Motion by Bruck/Langley:

"Move we accept Koenig's proposal in all situations where it doesn't conflict with X3 procedures."

Motion passed: 26 yes, 1 no, 1 abstain

5a. Approval of previous minutes

Lenkov submitted the minutes of the previous meeting (89-0001) for amendment or correction. They were accepted without change.

Insinga requested the vice-chair to start numbering documents. Miller asked if all X3J16 documents are public (including member lists and voting records). Lenkov replied that all registered documents are public. The committee explored options to limit distribution of some documents, but took no action.

The committee recessed for lunch.

Lenkov asked Miller to keep a log of X3J16 internal procedures. He also solicited opinions on when to hold technical sessions. He suggested that if we finished early on Tuesday, we could hold a technical session on exception handling that afternoon.

Miller posted the initial list of document numbers (90-0000). He asked that substantive e-mail be printed so it could be numbered.

6. International involvement and ISO new work item

Holman presented the results of ISO/SC22 Plenary Session held in Berlin in Sept '89 (90-0016). He stressed the last point: that SC22 wants to encourage joint standards development with X3.

Several people expressed their desire to involve the international community in X3J16's activities, but acknowledged there are limits to what we can do. Holman requested that we formulate a policy (as part of our goals) for handling international concerns.

Holman presented the ISO New Work Item for C++ (90-0008), which he had drafted from Lenkov's ANSI Project Proposal for C++. He asked the committee to approve the document before submitting it to ISO. A brief discussion followed.

Motion by Schwarz/Bruck:

"Move we postpone discussion on ISO New Work Item for C++ until after X3J16's goals are discussed."

Motion passed: 24 yes, 5 no, 1 abstain

Motion by Johnson/Bruck:

"Move we add agenda item 24a to discuss ISO New Work Item for C++."

Motion passed: lots yes, 1 no, 1 abstain

The revised minutes (Attachment 1) include this change.

7. Call for an international representative

Lenkov suggested we form an ISO delegation with several members. Johnson stated that international representatives must be U.S. citizens employed by U.S. companies. Lenkov called for volunteers by the July meeting.

8. X3J16 1991 summer meeting in Sweden

Bruck offered facilities for X3J16 to meet in Sweden in the summer of 1991 to promote international cooperation.

Several people spoke in favor of a policy of meeting regularly in Europe. Suggestions ranged from once a year, to once every other year. The committee considered the problems in Americans going to Europe vs. Europeans going to America. Bruck asserted that the problem is not just having a single conference in Europe, but actively involving Europeans in the process. Ball reminded us not to forget the Japanese.

Motion by Plum/Dlugosz:

"Move we proceed to plan a X3J16 meeting in Sweden in the summer of 1991."

Motion passed: 24 yes, 1 no, 1 abstain

9. Report of the goals working group

Holman acknowledged the help of the participants in working group and presented their proposal for the goals of X3J16 (90-0012).

Eckel raised several questions about examples: How extensive will the examples be? Will they be in a separate document? Is there a precedent for this in other standards? Should the standard be tutorial?

Stroustrup explained that the Annotated C++ Reference Manual (ARM) originally was to be three parts: definitions, annotations, and examples. He said if you put them in one document, it doesn't flow. They should be separate.

Langley stated we must be careful that examples don't contradict the text. Well expressed a preference for examples with the text. Stroustrup responded that examples get long, with variations, and they get too big to put into one document.

Eckel warned that creating examples could be time consuming. Stroustrup said we need examples to validate the manual.

Plum explained his plans to produce a published (copyrighted) test suite with examples. Maybe this commercial effort could fulfill the need for examples. Schwarz argued that examples are important and should be part of the standard. Roskind objected to the idea of a copyrighted test suite that could not be copied.

Seliger observed that "ease of use" was not listed as a priority in the language goals, and asked where it fits in. Clamage said "ease of use" can't be defined. Stroustrup said that "ease of use" is there under "expressiveness."

Ball asked why the ANSI C library was omitted from goals. Dlugosz answered that X3J16 is not standardizing the ANSI C library because it's standardized already.

Koenig warned that if we include ANSI C as a base document, we have to go over it with a fine-toothed comb. For example, the ANSI C function

```
char *strchr(const char *, int c);
```

breaks the C++ typing system. We may want to overload strchr based on const-ness of its first argument.

Plum recalled a discussion in X3J11 on whether C++ is the

migration path for C. If we can't support the C library in C++, we can't provide that path. He said he interpreted goal 7 (of 90-0012) to mean the library will be supported.

10. Approval of Goals WG's document as the base

Motion by Vasta/Miller:

"Move we accept 90-0012 as more-or-less defining the goals of X3J16."

Roskind suggested that we vote to approve only the first sentence of each numbered section of 90-0012, and that we refine the wording of the rest of the document during the week. Eckel proposed to amend the motion as follows:

"Move we accept the categories of goals defined in 90-0012 as the basis for subsequent work in defining goals."

This amendment was accepted by Vasta and Miller.

Motion passed: lots yes, 0 no

The meeting recessed for the evening at 5:30 p.m. and reconvened at 8:30 a.m. on Tuesday.

11. Position presentations and common discussion in regard to goals

McCluskey (90-0010) proposed a chapter in the standard on C++ environment issues. Seliger asked whether issues like calling sequences and the structure of stack frames are described in ANSI C. Plum responded no; they're considered implementation issues. Baldwin observed that McCluskey's proposal is already covered by item 4 in the proposed goals (90-0012).

Bruck (90-0005) advocated forming a working group on concurrency and real-time programming. The committee briefly discussed language and library features needed to support multi-tasking.

Tiemann and Stroustrup cautioned against burdening the language with operating system specifics. Stroustrup said the issue is whether C++ has the features to support building libraries that implement concurrency? He added that he is undecided about this, and that a working group is needed.

Roskind and Weil suggested the working group need not be formal; people with interest in the subject could meet on their own. Bruck favored a formal subgroup.

Koenig presented his views on parameterized types. He warned there are dangerous curves ahead. He explained that every Class (function) must have a single definition, but that it's hard to nail down the notion of "same type" because the preprocessor hides intent. He added that it's harder for a

standards committee to define these issues than it is for an individual implementor. He stressed the need to preserve both flexibility for implementors and utility for users.

Holman asked how this affects X3J16's goals. Koenig responded that we should avoid forcing implementations to use preprocessing to implement parameterized types. Roskind requested elaboration. Koenig explained that two types cannot be considered the same even if they are textually the same after preprocessing. For example,

```
static int x;
inline int f() {return x;}
```

O'Riordan stated that the example is illegal, to which Koenig replied "that we argue proves my point."

Langley (90-0017) advocated establishing a working group on parameterized types. He suggested that the group conduct an open-ended investigation of generic programming techniques, including an examination of facilities in other languages, that support these techniques. Stroustrup and Well countered that Stroustrup has done much of the preliminary work and there is no need to start from scratch.

12. Breaking into subgroups to discuss particular goals and items in the scope of work

Motion by Vilnot/Becker:

"Move we delete ANSI C standard as base document from goal 1 in 90-0012."

Plum saw this as a tough question. He explained that X3J11 sought to preserve the economic value of existing code, and if we don't address the public's concerns about their investment in code, we will be taken to task. The big question is "Is C++ the migration path for C?"

Stroustrup said he thought having two base documents would be confusing. He agreed there should be a migration path. The goals should state prominently that ANSI C is important, but not as important as the ARM.

Others expressed concern about the problems of merging the ARM and ANSI C. Plum again questioned whether X3J16 was committed to preserving the vast body of existing C code. He stated it's not just a clerical question of combining documents, it's a fundamental question of accepting ANSI C as part of the C++ standard.

Others agreed with Plum. Steve Carter suggested changing the second base document from ANSI C to ISO C.

Bruck supported the motion, arguing that ANSI C compatibility not as important in Europe as in the U.S., and that the ARM

already covers compatibility adequately.

Stroustrup explained that his position "as close as possible to C, but no closer" was not reached lightly. He said he caught flak both for being too close and not close enough. Again, he advised against deleting the reference to ANSI C. He thought the priority of the documents was already indicated by goal 2 in 90-0012.

During further discussion, two additional motions were made to add additional wording to the first goal. Carter presented a slide with new wording for the goal.

One of the motions was withdrawn, but two more were made regarding Carter's proposed wording. Holman appealed to all to withdraw their motions. Swarm and Saks pointed out problems with the implementation of multiway votes.

All pending motions were withdrawn.

The committee decided to rework goal 1 along the lines of items 1 and 2 of Carter's wording, and discard item 3. Further discussion added refinements to the wording.

Koenig proposed an additional operating procedure for X3J16:

"Once a motion has been moved and seconded, other motions may be offered as alternatives to the original motion. Each such motion that is seconded adds one to the number of alternatives to be considered by the vote on the original motion."

Motion by Schwarz/Well:

"Move we accept Koenig's proposal for implementing multiway votes as an addition to the existing rule."

In the ensuing discussion, Plum explained the concept of "the committee of the whole" and recommended we trust the chair to employ it.

Motion by Schwarz/Well passed: 16 yes, 12 no, 3 abstain

The committee recessed for lunch.

Roskind questioned the prudence of X3J16's tinkering with voting rules. Subsequent discussion revealed that members had different understandings of the rules that had been implemented.

Motion by Mark Mendell/Susan Waggoner:

"Move we remove all multiway voting rules from the internal procedures and follow Roberts Rules of Order."

In the subsequent discussion, it was noted that Koenig (who had proposed the rules) was absent. As a courtesy to him,

the motion was tabled until he returned.

The committee resumed the discussion of X3J16's goals. Holman presented revised wording for the first goal.

Lenkov invoked the committee of the whole.

Roskind asked if there is a problem using copyrighted material (namely the ARM) as a base document. Quinn presented a letter from AT&T granting permission to use the AT&T C++ Language System Product Reference Manual (PRM) Release 2.1 to formulate the standard. (This document is the same as the ARM (90-0004) without the annotations and commentary, but with errata (90-0013).)

The committee discussed changes to Holman's wording. Questions about the compatibility of C++ with ANSI C were raised again. Plum argued that X3J16 was chartered by X3 to preserve the C user community's investment in code. Schwarz objected to idea that C++ support C libraries by default.

Koenig returned to the meeting. Lenkov closed the committee of the whole.

Motion by Mendell/Waggoner (on multiway voting rules) was untabled and discussed.

Motion passed: 18 yes, 3 no, 7 abstain

Motion by Koch/Miller:

"Move we accept the statement of goal 1 as proposed by Holman and amended by the committee."

Motion by Insinga/Dlugosz:

"Move we amend the statement to replace all occurrences of 'standard' with 'working paper'."

Motion (on amendment) defeated: 3 yes, lots no, 3 abstain

Lenkov opened the committee of the whole.

Lenkov suggested discussing each goal in 90-0012 with the intention of forming working groups to refine the wording. A lengthy discussion followed.

The committee decided to discard goal 8 (on the formation of working groups) from 90-0012. It also decided to discard goal 10 (on delivery dates). Holman reminded the committee that ISO wants an estimate for the completion date of the standard, so it should be discussed. The committee decided not to form a working group on project schedules, but to plan an agenda item to discuss it at the next meeting.

After further discussion, the committee decided to form the

following working groups to refine the statement of goals for X3J16:

Section #s (90-0012)	Group leader
1, 9	Schwarz
2	Roskind
3	Villot
4	MCCluskey
5, 6, 7	Weil

Lenkov announced that a technical session on exception handling would be held that evening. It would not be part of the formal proceedings.

The meeting recessed for the evening at 5:35 p.m. and reconvened at 8:30 a.m. on Wednesday.

13. Subgroup sessions

14. Reports of subgroups and common discussion

Schwarz presented new wording for goal 1 (on base documents). This version included the statement that "When ISO C becomes available, the committee expects that it will also become a base document."

Prosser expressed uncertainty about using a document that's not available (ISO C) as a base. Koenig suggested that ISO C could supercede ANSI C when available. Weil asked what if ISO C conflicts with ANSI C?

The committee expressed other concerns about the wording and sent it back to the working group for refinement.

Roskind presented new wording for goal 2 (on syntax and semantics).

Tiemann and Becker questioned the change in wording from standardizing the C++ language to standardizing C++ programs. Stroustrup stated that the wording captured the right sentiment and he liked it.

The committee expressed one other concern and referred the matter back to the working group.

Villot presented revised wording for goal 3 (on libraries).

Several people questioned the use of "consistent" in "the C++ libraries will be consistent with the ANSI C library."

Koenig and Stroustrup responded that "consistent" is the right word. C++ should not be forced to copy the C library as is. We need the option to close typing holes.

Becker asked what "to provide a smooth migration path" means. Baldwin responded that the intent was that

printf("hello");

will work in C++.

O'Riordan expressed concern about the copyright on AT&T's iostream library.

The committee approved the statement of goal 3 as presented by Vilot.

McCluskey presented new wording for goal 4 (on environments). In response to a question, he said the goal does not cover implementation issues.

Charney questioned the use of the word "linkage." Stroustrup and O'Riordan said it's the right word; it's used in the ARM.

Some were sad to see the statement of priorities dropped from the goal.

The committee approved the wording of goal 4 presented by McCluskey.

Weil presented new wording for goal 5 (on major language extensions).

Roskind and Stroustrup warned about the sentence beginning "X3J16 should provide guidance for implementation...". The committee decided to delete it along with the lead-in.

O'Riordan objected to the word "validated" used in "validated by favorable .. experience". He wanted to keep the paragraph but change the word. The committee decided to drop the paragraph but keep the statement of priorities.

The committee sent goal 5 back to the working group.

Weil presented new wording for goal 6 (on international concerns). After a very brief discussion, it was approved without change.

Weil presented new wording for goal 7 (on compatibility with ANSI C).

Schwarz wanted a separate goal regarding the consistency of C and C++ implementations. The goal should encompass issues such as

- can a main() for a C++ program be written in C?
- does exit() called from a C function invoke static destructors?

The committee asked Schwarz to formulate a new paragraph stating this goal.

The committee enumerated several concerns about the wording and sent it back to the working group.

Lenkov asked the committee whether priorities should be stated in the goals. The committee decided to form a working group to create a single list of priorities.

Schwarz asked to be relieved of responsibility for goal 9. Lenkov formed a new working group for goal 9, and Charney volunteered to lead it. Insinga offered to lead the working group on priorities.

The committee recessed for lunch and working groups sessions.

Krohn presented new wording for goal 1 (on base documents). The committee approved it with minor changes.

Roskind presented new wording for goal 2 (on syntax and semantics), which was approved without change.

Weil presented new wording for goal 5 (on major language extensions) and it was approved without change.

Weil also presented new wording for goal 7 (on compatibility with ANSI C). He noted that it was revised to cover just compatibility issues.

Stroustrup asked what "existing levels of compatibility" means. Weil answered that we don't want to claim how high it is, but whatever it is, we don't want to diminish it.

The committee approved the wording as presented.

Weil presented new wording for goal 7a (on coordinating liaisons). It was approved with the understanding that the final wording would spell out the meaning of NCEG (the Numerical C Extensions Group). Since there was no goal 8, Lenkov renumbered 7a as 8.

Charney presented new wording for goal 9 (on deliverables). It no longer included examples as a deliverable. Baldwin bemoaned the loss. Others said we intend to provide examples, but we don't want to be obligated.

Some were concerned about the use of English to write the standard. Schwarz thought we should give proponents of formal notations a chance to be heard. Carter volunteered to investigate the use of formal notations.

The committee decided to accept the wording with minor changes.

Schwarz presented wording for a new goal on compatibility of C and C++.

Plum strongly favored the proposal. He explained that X3J11

considered the issue of Fortran calls from C, but backed off. At least X3J11 decided not to do anything to hamper it. Plum asserted that the relationship of C and C++ is special, and X3J16 should address this.

Koenig warned that we should impose requirements only on C++ implementations, not on C implementations. We should state what it means for a C++ implementation to be compatible with a C implementation, but not vice versa.

O'Riordan asked why Schwarz's proposal was not already covered by goal 4. McCluskey responded that goal 4 covers all C++ environmental issues, but not the special relationship of C and C++. McCluskey wasn't sure we wanted to get into it.

Zeiger and Carter said that users want to know how incremental changes from C to C++ will be handled. Roskind and Weil thought it was nice but not essential to do this, and it might be too time consuming.

Koenig agreed with Schwarz's proposal, but he did not see the compatibility relationship as symmetric, as he thought Schwarz did.

Koch proposed to change one of the bulleted items in goal 4 from "interaction with other languages" to "interaction with C and other languages." The committee did not accept this.

The committee decided to add a bulleted item to goal 4 (on environments), and accepted wording proposed by Koenig.

Insinga presented new wording for a statement of priorities. Quinn suggested splitting compatibility with C++ from compatibility with ANSI C as separate priorities. The list of priorities was approved with this change.

Carter suggested splitting portability from efficiency. Prosser, Stroustrup and O'Riordan argued that they couldn't be split.

The committee delayed the formal vote on the statement of goals until after they were combined into a single document and distributed. Quinn agreed to create that document.

16. Project editor

Lenkov announced that Peggy Quinn will be project editor. She can enlist assistants at her discretion.

17. Annotated C++ reference manual - common discussion

Insinga asked when the AT&T C++ PRM be available. Stroustrup replied "soon." A discussion ensued on whether the committee should work with the ARM (which had been distributed to the members) or the PRM (which had not). The ARM (90-0004), with the accompanying errata (90-0013), includes the entire PRM

(90-0020). The section numbers are the same, but the page numbers are different.

Charney and others asked for the draft in machine readable form. Charney offered to provide the committee with a PC-based tool for tracking updates to the document.

The committee decided to use the ARM as the working document until first draft is ready, but those who want can get a copy of the PRM.

18. Position presentations and common discussion

After a brief but confused discussion, the committee decided to skip to agenda item 23, prepare a list of concerns, discuss them, and form working groups based on those concerns.

The meeting recessed for the evening at 5:30 p.m. and reconvened at 8:35 a.m. on Thursday.

Lenkov decided to return to the original agenda and limit discussion on the PRM to 2 hours.

Miller had questions about the errata for the ARM (90-0013).

Stroustrup acknowledged that it might not be clear how they apply. He offered to help clear up confusion. He also explained that he distributed the ARM because he found that readers thought the annotations were helpful. He didn't anticipate the confusion over page numbers and copyrights. He apologized for the confusion.

Lenkov announced that everybody will get a copy of the PRM to avoid further the confusion.

Stroustrup asked what do to if he finds errors in his book (the ARM). Should he make the changes? Lenkov said he would talk to X3 about it.

Vilott and Schwarz suggested that Stroustrup make his changes and report them to the committee (in the form of a list). After some discussion, the committee decided:

- Questions about the C++ ARM should be sent to Quinn, who will record them in a database
- Stroustrup will attempt to answer them (he expects to need help)
- The answers will be included in the database
- The list of questions and answers (since the previous mailing) will be included in the official mailing two weeks before each meeting
- The communication working group will work on a scheme to distribute the list more frequently.

Stroustrup appealed to the members to discuss questions with friends before submitting them to Quinn. It might help re-

duce the wording.

The committee discussed the form of the standard, and decided to create an editorial subgroup to work with Quinn to determine the form of the document.

Members of the committee posed technical questions and concerns about the ARM. Stroustrup and Koenig attempted to answer them.

- 19. Breaking into subgroups to discuss concerns and disagreements
- 20. Subgroup sessions
- 21. Reports of subgroups and common discussion

These agenda items were dismissed. They were covered by the decision to maintain a database of questions and answers about the ARM.

- 22. Approval of the base document and the list of concerns, if any

This item was also dismissed. It was covered by the prior approval of goal 1 (on base documents).

- 23. Forming working groups

The committee briefly discussed forming a working group to edit the statement of goals to a consistent style, but decided not to do it.

Lenkov suggested a preliminary list of working groups and solicited comment. Prosser asked if we were forming long-standing subcommittees, or groups to work until the next meeting. Lenkov indicated the latter. Others thought we should be prototyping potential permanent subgroups. Lenkov stated that permanent subgroups must be approved by SPARC.

The committee decided to form working groups that will stand until the next meeting, and then reevaluate the set of groups.

After additional discussion, the committee formed the following subgroups (listed along with the group leader):

- 1) International Contacts - Carter
- 2) Editorial - Quinn
- 3) Communication (E-mail) - Charney
- 4) Unambiguous Grammar - Roskind
- 5) C Compatibility - Miller
- 6) Environments - Vasta
- 7) Libraries - Vilot
- 8) New Language Features (exception handling, parameterized types, real-time/concurrency, ...) - Stroustrup
- 9) Core Language - Koenig

Lenkov said that each group should form a statement of its

goals to be approved before adjournment on Friday.

The committee recessed for lunch.

- 15. Approval of the committee goals (revisited)

Quinn distributed the proposed goals (90-0023) for formal approval.

Lenkov closed the committee of the whole.

Glaeser reminded us that a motion (by Koch/Miller from Tuesday afternoon) was still pending. It was withdrawn.

Motion by Vasta/Dlugosz:

"Move we accept document 90-0023 as the goals of X3J16."

Motion passed: 30 yes, 0 no, 1 abstain

Lenkov opened the committee of the whole.

- 24. Development of goals and work plans by working groups

Lenkov asked each group to produce a statement of 1) goals, 2) scope of work, and 3) deliverables. The groups went to work.

- 25. Reports of working groups and common discussion

Quinn presented the statement of the Editorial group. It was accepted without comment. Members applauded.

Insinga presented the statement of the Communication group. Paul Zeiger asked if we will be able to use the (as yet undetermined) communication facility to browse the list of questions and answers about the ARM. Koenig responded that the group assumes everyone has a different computer. We'll be sharing mail, not software. He said that if you want to browse, bring the file on to your system, and then use your own browsing software.

After further discussion, the committee approved the statement presented by Insinga. It also decided that the working group would attempt to establish two network addresses: 1) a "reflector" - where to send mail for distribution to all committee members 2) a "mailbox" - where to send changes of address and requests for membership

Carter presented the statement from the International Concerns group, and it was approved without change.

Roskind presented the statement from the Unambiguous Grammar group, and it was approved without change.



Miller presented the statement from the C Compatibility group, and it was approved without change.

Vasta presented the statement of the Environments group, and it was accepted with minor amendment.

Vilot presented the statement from the Libraries group. It was approved with the understanding that Vilot would add a section on goals similar to that of the Environments group.

Stroustrup presented the statement from the Language Extensions group.

Miller asked if this group will address removal of features. Stroustrup replied that it would probably be handled by the Core Language group, instead.

The statement presented by Stroustrup was accepted without change.

Koenig presented the statement from the Core Language group, which was accepted without change.

The meeting recessed for the evening at 4:50 p.m. and reconvened at 8:35 a.m. on Friday.

25a. New ISO work item

Carter presented a draft of the work item (on transparencies) and requested feedback from the committee. The committee approved the spirit of the draft and returned it to the subgroup for refinement.

Carter announced that his employer, Bellcore, agreed to support him as ISO C++ WG Convener. Zortech will support Sam Druker as a delegate to the ISO WG, and Microtec Research will support Lily Chang to attend at least one ISO WG meeting a year.

26. Approval of working group plans and goals

After making minor changes, the committee approved the Working Group Report (90-0026) by straw vote, but delayed the formal vote until the end of the meeting.

27. Review of action items

The next meeting of X3J16 will be July 9-13 in Seattle, WA, hosted by Microsoft. Miller will handle the mailing scheduled two weeks before that. Documents received by him by June 1 will be included in that mailing. Send mail to Miller at the address listed in the Dec '89 member list (89-0002).

The committee considered different strategies for mailing documents to avoid unnecessary reproductions, but decided to

mail all new documents to all members in the official mailings.

Copies of the AT&T C++ PRM (90-0020) were distributed. Quinn announced that Appendices C and D are not part of the manual released by AT&T for use by X3J16.

Other future X3J16 meetings:

- Nov 12-16, 1990 at Cupertino, CA hosted by Hewlett-Packard
- Mar 11-15, 1991
- June 17-21, 1991 at Lund, Sweden

About 30 people said they'd probably make it to the Lund meeting.

27. Review Action Items

There are nine working groups. Their action items for the next meeting are stated in 90-0026.

Quinn will mail the documents from this meeting.

Miller will mail new documents two weeks before the July meeting.

Koenig will take a photo of the X3J16 members.

28. Goals and preliminary agenda for the July meeting

Reviewing the results of the working groups will dominate the next meeting.

Prosser suggested appointing liaisons at the next meeting. He is the liaison from NCEG. Either Thomas Plum or Bruce Tanenbaum will be the liaison from X3J11. Prosser suggested that X3J16 may wish to appoint different people to be its liaisons.

The committee previously decided to plan to discuss long-term project schedules at the next meeting.

Lenkov will schedule technical sessions focusing on parameterized types.

29. New business

Charney restated his request that the draft be available in machine-readable form. The committee agreed it was desirable. Lenkov said he will check with X3 about legal obstacles to this.

The committee discussed technical problems with Charney's request. Swan volunteered to help make diskettes containing copies of documents. He will work with Quinn on this.

Apr 19 10:28 1990 X3J16/90-0028 Page 19

Lenkov closed the committee of the whole.

Motion by Carter/Druker:

"Move we adopt 90-0027 as ISO C++ new work item proposal."

Motion passed: 27 yes, 0 no, 0 abstain

Motion by Langley/Maggoner:

"Move to accept 90-0026 (as amended during discussion) as our work group plan."

Motion passed: 27 yes, 0 no, 0 abstain.

Lenkov reminded members that if they don't submit an X3 Sub-group Application with a statement of qualifications, they may lose voting status.

Motion by Insinga/Vilott:

"Move we adjourn."

Motion passed.

The meeting adjourned at 10:50 a.m. on Friday, March 16, 1990.

Attachments:

1. Revised agenda
2. Attendance