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**Programming languages, their environments and system software interfaces**  
**- Programming language COBOL**  
**Secretariat: U.S.A. (Convener)**

**ISO/IEC JTC 1/SC22/WG4**  
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# MINUTES OF WG4 MEETING 21

**Meeting dates:** 21 - 23 May 2000

**Location:** MERANT  
Room G1-2  
The Lawn  
22-30 Old Bath Road  
Newbury, Berkshire RG14 1QN, UK

**Convener:** Ann Wallace (aka Ann Bennett)  
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**Notes:**

{Votes in this report are individual straw votes or country straw votes. Individual straw votes indicate one vote per delegate; country straw votes indicate one vote per country represented.}  
{The paragraphs in these minutes correspond to the agenda item number regardless of the sequence in which topics were processed. Actions under some agenda items may have occurred on multiple days.}

**1. Opening of WG4 meeting.** Ms Ann Wallace, convener, called WG4 meeting 21 to order at 0900 hours British Summer Time (BST) on Sunday, 21 May, 2000, in Newbury, Berkshire. This was a co-located meeting with the NCITS J4 COBOL Technical Committee meeting 225. At this co-located meeting, J4 met before and after the WG4 meeting.

**2. Opening business**

**2.1 Introduction of Delegates.** The delegates from each country were introduced. The following is the list of delegates in attendance for all or part of the meeting, along with their affiliation if any:

**Germany:**

Mr. Othmar Augustin, GOI  
Mr. Bernd Ewert, GOI  
Mr. Peter Kamp, Siemens AG

**Japan:**

Mr. Tomohiko Inoue, NEC  
Mr. Kazuhiko Noba, Fujitsu Limited  
Mr. Wataru Takagi, Hitachi, Ltd.

**The Netherlands:**

Mr. Ab de Lange, Department of Defense  
Mr. Wim Ebbinkhuijsen  
Mr. Huib Klink

**U.K.:**

Mr. Rod Grealish  
Mr. Robert Jones  
Ms Jeanette Nutsford  
Mr. Robert Sales, MERANT  
Mr. John Piggott, SPC Systems Ltd.  
Mr. Brian Murray Watts, De Montfort University

**U.S.:**

Mr. Dennis Booth, EDS  
Mr. William M. Klein  
Mr. Donald F. Nelson, Compaq Computer Corporation

Mr. Don A. Schricker, MERANT

**2.2 Introductory remarks by convener.** Ms Wallace stated that the purpose of the meeting is to determine if the draft standard is ready for FCD status. Also, some major issues presented in the WG4 internal "mini" quality review have to be resolved.

**2.3 Welcome by host, local arrangements.** Mr. Don Schricker, MERANT, greeted the delegates and presented administrative details about the meeting.

**2.4 Appointment of secretary and chair.** Ms Wallace chaired a major part of the meeting and appointed Mr. Wim Ebbinkhuijsen as co-chair for the remainder of the meeting. Mr. Donald F. Nelson was appointed secretary.

**2.5 Selection of drafting committee.** Mr. Grealish, Mr. Schricker, and Mr. de Lange volunteered to serve on the drafting committee. Ms Wallace asked Mr. Grealish to chair this committee.

**2.6 Recognition of documents.** Documents discussed during the meeting are identified in the final agenda, attachment 1 to these minutes.

{Note: Temporary documents are numbered either UK-n or UK-nnnn where nnnn corresponds to the J4 document number - For example, numbers UK-0481 and J4/00-0481 correspond and reference the same document. Temporary documents are working documents or supporting documents that are of WG4 use only during the meeting.}

**2.7 Approval of the agenda.** Ms Wallace distributed a preliminary agenda, which was modified in discussion. The modified agenda was approved by consensus and is attached to these minutes as attachment 1, Final Agenda.

**2.8 Approval of minutes of meeting 20, Monterey, CA, November 1998.** WG4 N 0127, the minutes of meeting 20, was modified as follows: in Attachment 1, Attendance at WG4 Meeting 20, the company for Mr. Barry Tauber was changed from "CNA Plaza" to "CNA". The minutes of meeting 20 were approved unanimously.

**3. JTC1 or SC22 news.** Ms Wallace reported the following:

- The new SC22 chairman is John Hill, who replaces Robert Follett.
- The new SC22 secretariat is Marisa Peacock, who replaces Bill Rinehuls.
- JTC1 is initiating a trial period for selling standards on CD. The cost will be at most \$25.

#### **4. Liaison**

**4.1 J4.** Mr. Schricker reported on the recent actions of NCITS J4, highlighting the following:

- the ATTRIBUTES clause for report writer was removed.
- discussions of a FINALIZER method resulted in a recommendation that it be specified in a technical report rather than in the current draft.
- J4 had completed processing the comments on the previous WG4 internal quality review and the associated changes were included in CD 1.8. Subsequently, the current "mini-review" was initiated to review that work. There have been around 50 comment documents on the "mini" review. J4 has processed them sufficiently to identify issues needing WG4 direction.

**5. Preliminary discussion of future meetings.** The U.S. volunteered to host the next WG4 meeting, pending approval of ANSI. The Netherlands also volunteered to host the next WG4 meeting. The next meeting will be needed in about a year, for the purpose of processing FCD ballot comments.

**6. CD 1.8 "mini" quality review.** Ms Wallace pointed out that a WG4 internal quality review of CD 1.4 was initiated in response to 3 national body CD ballot comments that the quality of the document needed improvement. Substantial rework had been done, which resulted in the need for the current mini-review of CD 1.8. She pointed out that effort must be directed toward ensuring the document is technically correct and that this is not the time to add new features.

**6.1 WG4 N 0140, Review issues for WG4.** Review comments on CD 1.8 had been posted to the J4 web site. WG4 N 0140 summarizes review comments that J4 had selected for WG4 action at this meeting. The following is a list of the selected comments and the result of WG4 discussion. A brief caption identifies the issue. WG4 N 0140 provides more information on each issue, along with any recommended action from J4.

**Item 1. Add a TEST-TIME intrinsic function.** There was consensus to not add a TEST-TIME intrinsic function. There was consensus to add an example to the concepts section to illustrate use of a user-defined function with VALIDATE to accomplish the capability of a TEST-TIME intrinsic function. Mr. Klein and Mr. Piggott agreed to create this example.

**Item 2. Add a new format to DIVIDE and DIVIDE BY.** Mr. Ebbinkhuijsen presented reasons why the new format should be added. There was consensus that this should not be done in this draft and should be added to the list of candidates for a future revision.

**Item 3. Change EC-REPORT-VARYING and EC-VALIDATE-VARYING exception conditions from fatal to non-fatal.** Mr. Piggott presented reasons why this should be done. The following votes were taken:

***Individual straw vote:***

Change EC-REPORT-VARYING and EC-VALIDATE-VARYING from fatal to non-fatal.

Yes - 7, No - 4, Abstain - 7

***Country straw vote:***

Should EC-REPORT-VARYING and EC-VALIDATE-VARYING exception conditions be non-fatal.

YES: The Netherlands, UK

NO: Germany, Japan, US

These exception conditions will remain fatal.

**Item 4. Prohibit ANY LENGTH items as function arguments.** There was consensus to reject the comment.

**Item 5. Permit ANY LENGTH on level 77.** The following votes were taken:

***Individual straw vote:***

Discourage enhancing level 77 items

Yes - 10, No - 4, Abstain - 4

***Individual straw vote:***

Permit ANY LENGTH on level 77 items

Yes - 4, No - 11, Abstain - 3

J4 recommended that the comment be rejected. There was consensus to reject the comment.

**Item 6. What length should be used for initializing (with INITIALIZE statement) a variable-occurrence data item?** The J4 recommendation was that the maximum number of occurrences be used. There was consensus to accept the J4 recommendation.

**Item 7. Questions about the functions LENGTH and BYTE-LENGTH with bit arguments.** The J4 recommendation was to disallow bit arguments to the BYTE-LENGTH function. It was noted in discussion that function LENGTH returns the number of boolean position for bit items. This can be quite useful and there are no specification or implementation difficulties. There was consensus to disallow bit items as arguments to the BYTE-LENGTH function, but not to the LENGTH function.

**Item 8. Enhance the INTEGER-OF-DATE function to handle dates before 1601.** The J4 recommendation was to add this to the list of candidates for a future revision. There was consensus to accept the J4 recommendation.

**Item 9. The WHEN-COMPILED function and what date and time are used.** The J4 recommendation was to change "time of compilation of the compilation unit" to "time of processing of the compilation unit". There was consensus to leave the draft as is ("time of compilation").

**Item 10. IS and ARE should be allowed as synonyms where they appear as alternatives.** The J4 recommendation was to add this to the list of candidates for a future revision. It was suggested that instead the standard should be changed back to the COBOL 85 method which requires correct English (e.g. VALUES ARE and VALUE IS rather than VALUE ARE and VALUES IS).

The following votes were taken:

**Individual straw vote:**

- Return to the COBOL 85 syntax that requires correct English for IS and ARE. 8
  - Do not make any changes to the base document. 9
  - Abstain.
- 1

**Country straw vote:**

- Return to the COBOL 85 syntax that requires correct English for IS and ARE: UK, US, The Netherlands
- Do not make any changes to the base document Germany, Japan.

**Item 11. Disallow USAGE NATIONAL with items described as category numeric-edited.** The J4 recommendation was to allow such USAGE, but the resulting category was questioned. The following votes were taken:

**Individual straw vote:**

Disallow usage national for category numeric-edited.  
Yes - 3, No - 7, Abstain - 11

Usage national with category numeric-edited will be retained. Ms Wallace was requested to investigate the issue of the appropriate category. Resolution was left to J4.

**Item 12. Hex literal delimiters.** The comment noted that for compatibility with implementor extensions, hex literals should be delimited by "X" for literals that represent the runtime, not compile-time, value of the literal. WG4 considered the J4 recommendation to use "AX" for alphanumeric literals that can be translated from compile-time to runtime characters sets, "NX" for untranslated national literals, and "TX" for translated national literals. It was suggested during discussion that "NTX" be used for national translated literals. There was consensus to make the "X" literal and the "NX" literal represent bit patterns at runtime. There was consensus to not add "AX", "TX" and "NTX" translatable literals at this time.

**Item 13. Questions about processing of COLUMN clause in the report section and screen section.** After removal of the ATTRIBUTE clause, there is no way to determine an accurate position or print space for presentation of characters of different sizes (for example, usage display, usage national, combining sequences). The J4 recommendation was to add a note stating that columns might not line up if the characters do not print in a fixed size. There was consensus to accept this solution.

**Item 14. General rule 13 of the PICTURE clause.** The comment asks that general rule 13 be fixed where it is misleading or wrong. It has the same problems in COBOL 85. The J4 recommendation was to optionally fix it – that is, if there is time and someone suggests clear, correct, and reasonable fixes, they should be done. It was noted that no implementors had difficulty understanding the semantics even though the rules were not written accurately.

The following votes were taken:

**Individual straw vote:**

- The rules must be fixed in this revision. 0
- Optionally fix in this revision. 10
- Do not fix the current revision. 4
- Abstain. 4

**Country straw vote:**

- The rules must be fixed in this revision: None
- Optionally fix in this revision: Japan, UK, US
- Do not fix the current revision: Germany, The Netherlands

J4 will fix PICTURE clause general rule 13 if a reasonable proposal is developed and there is time to process it.

**Item 15. Declaratives in objects.** The J4 recommendation was to remove declaratives from the object-oriented format of the procedure division. Declaratives can be coded in methods. There was consensus to accept the J4 recommendation.

**Item 16. Questions about taking the length of a numeric function's returned value.** The J4 recommendation was to disallow numeric and integer functions as arguments to the LENGTH and BYTE-LENGTH intrinsic functions. There was consensus to accept the J4 recommendation.

**Item 17. Issues with working storage and methods.** The J4 recommendation was to disallow the file section, working-storage section, report section, and screen sections in a method. There was consensus to accept the J4 recommendation.

**Item 18. Add the RETRY clause to the file control entry.** The J4 recommendation was to add this to the list of candidates for a future revision. There was consensus to accept the J4 recommendation.

**Item 19. Add the RETRY phrase to the OPEN statement to apply to all operations for that file connector until it is closed.** The J4 recommendation was to add this to the list of candidates for a future revision. There was consensus to accept the J4 recommendation.

**Item 20. Allow the RETRY and ADVANCING ON LOCK phrases on the same READ statement.** The J4 recommendation was to add this request to the list of candidates for a future revision. There was consensus to accept the J4 recommendation.

**Item 21. Add COMMIT and ROLLBACK.** The J4 recommendation was to add this to the list of candidates for a future revision. There was consensus to accept the J4 recommendation.

**Item 22. GROUP-USAGE DISPLAY should be added.** The J4 recommendation was not to do so. The following vote was taken:

**Individual straw vote:**

- Add GROUP-USAGE DISPLAY in this revision: 1
- Add GROUP-USAGE DISPLAY to the list of candidates for a future revision 13
- Do not add GROUP-USAGE DISPLAY to the revision or the list: 3
- Abstain: 1

GROUP-USAGE DISPLAY will be added to the list of candidates for a future revision.

**Item 23. Add a USAGE BINARY-xxx that allows at least 31 decimal digits.** The J4 recommendation was not to do so. The following votes were taken:

**Individual straw vote:**

Add a USAGE BINARY-xxx that supports at least 31 decimal digits.  
Yes - 4, No - 7, Abstain - 7

**Country straw vote:**

Add a USAGE BINARY-xxx that supports at least 31 decimal digits.  
YES: The Netherlands, UK  
NO: Germany, Japan, US

The comment is rejected.

**Item 24. Require SIGN SEPARATE in numeric items in a national group.** The J4 recommendation was to not make such a requirement. The following votes were taken:

**Individual straw vote:**

Require that SIGN SEPARATE be specified for numeric items in a national group.  
Yes - 3, No - 5, Abstain - 10

**Country straw vote:**

Require that SIGN SEPARATE be specified for numeric items in a national group.  
YES: Germany, US  
NO: Japan, The Netherlands, UK

**Item 25. Handling compile-time arithmetic expressions that do not result in an integer value.** The J4 recommendation was to make such source code nonconforming. Currently the value is truncated to an integer. The following votes were taken:

**Individual straw vote:**

If a compile-time arithmetic expression evaluates to a non-integer, then the source code should be non-conforming.  
Yes - 6, No - 9, Abstain - 3

**Individual straw vote:**

Concerning non-integer compile-time arithmetic expressions,

- The source code should be non-conforming:	4
- Leave processing as it is in the draft standard:	6
- Find another alternative:	4
- Abstain:	4

**Country straw vote:**

Concerning non-integer compile-time arithmetic expressions,

- The source code should be non-conforming:	None
- Leave processing as it is in the draft:	Germany, Japan, The Netherlands,
	- UK, US
- Find another alternative:	None

Non-integer compile-time arithmetic expressions will continue to be truncated to an integer.

**Item 26. Variable-length items and using the maximum size in the LENGTH and BYTE-LENGTH phrases of a constant entry.** The J4 recommendation was to prohibit variable-length items as arguments to these functions. The following vote was taken:

**Individual straw vote:**

Prohibit the reference of variable-occurrence data items in the LENGTH and BYTE-LENGTH phrases of a constant entry.  
Yes - 1, No - 16, Abstain - 1

The reference will be allowed and the maximum size of variable-occurrence data items will be used for the LENGTH and BYTE-LENGTH phrases of a constant entry.

**Item 27. LEAP-SECOND option should be in the OPTIONS paragraph rather than a directive.** The J4 recommendation was to not provide that functionality in the OPTIONS paragraph. The following vote was taken:

**Individual straw vote:**

Do not move the LEAP-SECOND directive to the OPTIONS paragraph.  
Yes - 14, No - 1, Abstain - 3

The LEAP-SECOND functionality will continue to be defined as a compiler directive.

**Item 28. Two topics relating to the use of underscore.** (1) the intent is to never use underscore in reserved words except those starting with LC\_ ; (2) make hyphen and underscore equivalent. The J4 position on the use of underscore in reserved words was to reject never using them. The J4 vote on making hyphen and underscore equivalent was YES -3, NO - 2, Abstain 2. The following votes were taken:

**Individual straw vote:**

State that the intent of the standards developers is to never use underscore in reserved words except those starting with LC\_ .  
Yes - 1, No - 14, Abstain - 3

**Individual straw vote:**

Make underscore and hyphen equivalent in some situations.  
Yes - 4, No - 11, Abstain - 3

Hyphen and underscore will not be made equivalent and the draft will not contain the requested statement of intent.

**Item 29. Allow BASED for local-storage section items.** The J4 recommendation was to not accept this change. The following votes were taken:

**Individual straw vote:**

- Allow BASED items:
- Only in the linkage section: 5
- In working-storage, local-storage, and linkage sections: 3
- In working-storage and linkage sections as in the current specification 7
- Abstain: 3

**Country straw vote:**

- Allow BASED items:
- Only in the linkage section: Germany, The Netherlands,
- In working-storage, local-storage, and linkage sections: UK, Japan
- In working-storage and linkage sections, as in the current specification: US

The UK changed their vote to "Only in the linkage section" to resolve the tie.

**Item 30. Two topics relating to GOBACK:** (1) allow GOBACK without any phrases in place of EXIT FUNCTION and EXIT METHOD; (2) add the RAISING phrase to GOBACK so that it could be substituted for EXIT xxx anywhere. The following votes were taken:

**Individual straw vote:**

Allow GOBACK with no phrases in addition to the EXIT FUNCTION and EXIT METHOD statements.

Yes - 13, No - 4, Abstain - 1

**Individual straw vote:**

Allow the RAISING phrase in GOBACK and it will be ignored in the main program.

Yes - 8, No - 7, Abstain - 3

**Country straw vote:**

Add the RAISING phrase to the GOBACK statement. This phrase will be ignored in a main program.

YES: The Netherlands, UK, US

NO: Germany, Japan

GO BACK with RAISING will be added in functions and methods in accordance with these votes.

**Item 31. Flagging of native arithmetic.** This is a request to flag arithmetic operations that switch to native arithmetic when standard arithmetic is in effect. There was no J4 recommendation. The following vote was taken:

**Individual straw vote:**

Flag switches from standard to native arithmetic:

- Only on operations: 3
- On both operations and data types: 6
- Not at all: 5
- Abstain: 3

**Country straw vote:**

Flag switches from standard to native arithmetic:

- Only on operations: UK
- On both operations and data types: Germany, US, The Netherlands
- Not at all: Japan

There will be flagging of operations and data types that cause processing to switch from standard arithmetic to native arithmetic.

**Item 32. Require elements that were required in area A in the old fixed-form format to start on the beginning of a line in the new fixed-form format.** The J4 position was to not do so. The following vote was taken:

**Individual straw vote:**

Do not restore the Area A restrictions of COBOL 85.

Yes - 15, No - 1, Abstain - 2

The specification will stay as it is: the Area A restrictions of COBOL 85 will not be put in the draft.

**Item 33. Add new intrinsic functions to normalize UNICODE data.** The J4 recommendation was to not do so. There was consensus to add this feature to the list of candidates for a future revision.

**Item 34. Add multiple usages for Unicode multiple encoding schemes.** The J4 recommendation was to reject the request. There was consensus to add the features to the list of candidates for a future revision.

**Item 35. "Format" validation of pointers, index data items, and object references.** The J4 recommendation was to always consider them valid on format. The following vote was taken:

**Individual straw vote:**

Disallow format, content, and relation validation and associated syntax on items of class pointer, index, and object.

Yes - 10, No - 1, Abstain - 7

VALIDATE phrases will be syntactically invalid on data items of class pointer, index, and object, and these classes will not be validated.

**Item 36. The ALLOW clause and restrictions on literals.** The J4 recommendation was to add a restriction to the literals permitted in the ALLOW clause. Additional problems with the ALLOW clause were presented during discussion. The following vote was taken:

**Individual straw vote:**

Delete the ALLOW clause

Yes - 7, No - 1, Abstain - 10

In further discussion, there was consensus to delete the ALLOW clause.

**Item 37. More on the ALLOW clause and restricted literals.** The J4 recommendation was to add a note explaining the complex case pointed out in the comments and discussion. This is no longer relevant because of the consensus to remove the ALLOW clause.

**Item 38. Two comments on files in instance objects:** (1) files should be allowed without any restrictions; (2) sharing and locking restrictions should be enforced. J4 did not discuss this topic and therefore had no recommendation.

There was consensus to accept comment 4 in J4/00-0408 to remove the restrictions on referencing files in objects. In addition, the following vote was taken:

**Individual straw vote:**

The intention of the file sharing and record locking facility is to provide the tools for locking, not to enforce the use of locking.

Yes - 17, No - 0, Abstain - 1

It was noted that record locking cannot be required for O-O because locking is processor-dependent.

**Item 39. Add the RAISING phrase to the requirements for conformance between interfaces.** J4 did not discuss this topic and therefore had no recommendation. There was consensus that the change is needed and consensus to accept the comment.

**6.2 Identify additional issues from comment documents.** Delegates were asked to add any other issues from comment documents that they wanted to discuss. No additional issues were added from comment documents. A new issue, discussed in 6.2.1, was raised.

**6.2.1 Definition of processor dependency.** The following votes were taken:

**Individual straw vote:**

Change the title of 3.1.5 to "Processor-dependent (optional) language elements".

Yes - 5, No - 10, Abstain - 3

**Individual straw vote:**

Require the implementor to document the factors that make an element processor-dependent.

Yes - 6, No - 10, Abstain - 2

Mr. Ebbinkhuijsen was chairing the meeting and asked whether anyone wanted a country straw vote. No-one requested it. There will be no change to the definition of processor-dependency and the implementor will not be required to document factors in choosing processor-dependency.

**6.3 Commercial viability of the draft.** There was lengthy discussion about whether or not any vendor would implement all of this standard if it is approved. The reasons pointed out were that there is not expected to be a U.S. Government mandate for government procurement and the standard is large and complex. Alleged problems with Basic and PL/1 were pointed out.

Mr. Klein suggested that the screen section and file sharing and record locking should be removed from the standard in order to simplify it. There was no agreement on this or on the removal of any other feature.

There was general agreement that the best thing to do for commercial viability is to get the document approved as soon as possible.

**6.4 Unicode support in the COBOL draft.** Ms Wallace presented an overview of UNICODE, or ISO/IEC 10646. She described the general specification of the variations in form — UCS-2, UCS-4, UTF-8, UTF-16, and UTF-32 — and some of the challenges associated with their implementation. She pointed to the web page of the Unicode consortium for anyone interested in further details, [www.unicode.org](http://www.unicode.org).

**6.5 UK-2 - Make GO TO archaic.** Document UK-2 proposed that the GOTO statement be placed into the archaic category. The following vote was taken:

***Individual straw vote:***

Make GO TO archaic.  
Yes - 9, No - 7, Abstain - 2

***Country straw vote:***

Make GO TO archaic  
YES: The Netherlands, Germany  
NO: UK, Japan, US

GOTO will not be placed in the archaic category.

**7. Proposed finalizer technical report.** J4 proposed that WG4 initiate work on a technical report for a finalizer method. A J4 letter ballot to add an automatic finalizer method to the draft had failed and there were considered to be technical difficulties that precluded a stable definition at this time. There was discussion of the scope of work and whether similar automatic methods, such as an initializer, should be included. It was pointed out that the scope of work should be fixed and that the work should be planned such that it would not introduce delay in the revision. This could be accomplished by establishment of a J4 ad hoc group to produce a draft specification. The following vote was taken:

***Individual straw vote:***

Add a finalizer to the current revision  
Yes - 1, No - 14, Abstain - 4

***Individual straw vote:***

Initiate a work item for a technical report for a finalizer and directly-associated object-oriented COBOL language elements.  
YES - 17, NO - 0, Abstain - 2

The drafting committee was requested to draft a resolution requesting the convener to initiate the paperwork to develop a technical report. It was noted that the convener should explore whether a subdivision of the COBOL work item is possible or whether an NP (new proposal) is required.

**7.1 Amendment and technical report considerations.** Ms Wallace explained the difference between an amendment and a technical report. An amendment changes the normative specification and conformance requirements, while a technical report does not.

**7.2 N0135 - J4 discussion of a FINALIZER technical report.** N 0135 records significant points of J4 discussion leading to the recommendation that a finalizer method be developed in a technical report rather than in the current draft standard. The document was for information and required no action.

**8. Class library technical report.** There was consensus that the revision schedule precludes making a plan for the class library at this time, although there is a draft specification and anyone can submit input now.

## **9. Schedule and future plans**

**9.1 Review draft revision schedule.** Ms Wallace presented 3 schedule alternatives, based on different assumptions (UK-3, UK-4, and UK-5). The prevailing sentiment was to adopt UK-4, a schedule that assumed the FCD receives substantial support. That schedule is presented in WG4 N 0142. It targets FCD start for February 1, 2001, and projects publication in December 2002. The following vote was taken:

### ***Individual straw vote:***

Accept the schedule in WG4 N 0142 and convey it as WG4's request to J4 for the processing of this revision.

YES - 17, NO - 0, Abstain - 2

**9.2 Development planning for class library technical report.** See discussion under item 8.

**9.3. Future meetings.** The tentative offer of the U.S. to host the next meeting is under consideration by the convener. Because the current meeting is in the UK, she prefers the next meeting to be on the North American continent, returning to the effort to alternate meetings between Europe and North America. If the U.S. does not present a timely commitment to host, the offer of the Netherlands will be accepted.

**10. Review and approval of resolutions from this meeting.** The following are the resolutions from the meeting:

### ***Resolution A***

SC22/WG4 requests its convener to initiate a work item for a technical report for a "finalizer" facility and directly-associated object-oriented COBOL language elements.

Approved unanimously

### ***Resolution B***

SC22/WG4 extends its appreciation to the management and staff of MERANT for providing excellent facilities and services for the WG4 meeting held 21-23 May 2000 at MERANT in Newbury, UK.

Approved unanimously

## **11. Close of the meeting**

With resolutions having been approved and scheduled time for the meeting having expired, the chair declared the meeting adjourned at 1800 hours BST, Tuesday, 23 May 2000.

\_\_\_\_\_ End of report \_\_\_\_\_

Attachment 1

Final Agenda  
ISO/IEC JTC1/WG4 - COBOL  
Meeting 21

May 21-23, 2000  
Newbury, UK

1. Opening of the meeting: 9:00 am, Sunday, May 21, 2000
2. Opening business
  - 2.1 Introduction of delegates
  - 2.2 Introductory remarks by convener
  - 2.3 Welcome by host, local arrangements
  - 2.4 Appointment of secretary and chair
  - 2.5 Selection of drafting committee
  - 2.6 Recognition of documents
  - 2.7 Adoption of agenda
  - 2.8 Approval of Meeting 20 Minutes, Nov. 1998 (WG4 N 0127)
3. JTC1 or SC22 news
  - New chairman
  - New secretariat
  - Trial period for selling standards on CD
4. Liaison
  - 4.1 J4 (Don Schricker)
5. Preliminary discussion of future meetings
6. Review comment processing
  - 6.1 WG4 N 0140 - Review issues for WG4
  - 6.2 Identify additional issues from comment documents (UK-0377, J4 agenda)
  - 6.3 Definition of processor dependencies
  - 6.4 Commercial viability of the draft
  - 6.5 Unicode support in the COBOL draft
  - 6.6 Make GOTO "archaic" (UK-2)
7. Proposed finalizer technical report
  - 7.1 Amendment and Technical Report considerations
  - 7.2 WG4 N 0135 - Finalizer Technical Report
8. Class library technical report
9. Schedule and future plans
  - 9.1 Review revision schedule drafts (UK-3, UK-4, UK-5)
  - 9.2 Development planning for Class Library Technical Report
  - 9.3 Future meetings
10. Review and approval of resolutions from this meeting
11. Close of the meeting: end of day May 23, 2000