# First draft

# ISO/IEC JTC1/SC22/WG4 Programming languages, their environments and system software interfaces - Programming language COBOL Secretariat: U.S.A. (Convener) ISO/IEC JTC 1/SC22/WG4 N0187 TITLE: WG4 Meeting 24, 26-28 June 2003 **DATE ASSIGNED:** 10 July 2003 SOURCE: Don Schricker, Convener, ISO/IEC JTC1/SC22/WG 4 **BACKWARD POINTER** N/A **DOCUMENT TYPE:** Working group meeting report PROJECT NUMBER: JTC 1.22.01.07 STATUS: For information **ACTION IDENTIFIER:** FYI **DUE DATE:** N/A **DISTRIBUTION:** MS Word 6.0 **CROSS REFERENCE:** N/A **DISTRIBUTION FORM:** Protected Address reply to: ISO/IEC JTC 1/SC 22/WG 4 Convener Don Schricker, Micro Focus **4012 Nancy Margarite Lane** Las Vegas, NV 89130-2618

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# **WG4 Meeting 24**

**Meeting dates:** 26 - 28 June 2003

Location: Alexis Park Resort

Apollo Ballroom 4 (26 June) / Executive Boardroom (27 - 28 June)

375 East Harmon

Las Vegas, Nevada 89109, USA

Convener: Don Schricker

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# 1. Opening of WG4 meeting.

Mr. Don Schricker, convener, called WG4 meeting 24 to order at 0900 hours Pacific Standard Time on Thursday, 26 June 2003, in Las Vegas, Nevada.

# 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

Japan:

Dr. Tetsuji Imajo Mr. Wataru Takagi

#### The Netherlands:

Mr. Wim Ebbinkhuijsen

Mr. Huib Klink

# New Zealand:

Ms Jeanette Nutsford Mr. Kendall Nutsford

**U.K.:** 

Mr. Rod Grealish Ms Jeanette Nutsford

#### U.S.A.:

Ms. Ann Bennett Mr. Bruce Hobbs Mr. Robert A. Karlin Mr. Donald F. Nelson

Mr. Charles C. Stevens

Mr. Barry Tauber

Mr. Michael Watson

# 2.2 Introductory remarks by convener.

# 2.3 Welcome by host, local arrangements.

Mr. Schricker greeted the delegates and presented administrative details about the meeting and its environment.

# 2.4 Appointment of secretary and chair.

Mr. Schricker chaired the meeting. Mr. Wim Ebbinkhuijsen volunteered to chair, if necessary. Mr. Charles C. Stevens was appointed secretary.

# 2.5 Selection of drafting committee.

Mr. Grealish, Ms. Bennett and Mr. Klink volunteered to serve on the drafting committee. Mr. Schricker 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.

### 2.7 Approval of the agenda.

Mr. Schricker distributed an updated agenda, which was further 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 23, Noba, Japan, September 2002 (WG4 N 0169).

The minutes of Meeting 23 were approved with the amendment that Rod Grealish's title is Mr., rather than Dr.

# 3. JTC1 or SC22 information affecting the group

There has not been an SC22 plenary since the last WG4 meeting. The next SC22 plenary will be 15 - 19 September 2003 in Oslo, Norway.

Ms. Bennett noted significant interest in the standardization of Linux.

### 4. Liaison Reports

## 4.1 The Open Group:

Mr. Schricker reported the discontinuance of liaison between WG4 and the Open Group.

# 4.2 WG11, Binding Techniques:

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Mr. Grealish reported on Language Independent Arithmetic and Language Independent Data Types.

**4.3 SQL:** Ms. Bennett noted that the SQL standard refers to the prior COBOL standard.

### 4.4 WG20:

Mr. Schricker has expressed interest in attending the next WG20 meeting.

# 5. Preliminary discussion of future meetings.

Mr. Ebbinkhuijsen expressed interest on behalf of the Netherlands in hosting the next WG4 meeting. This meeting is tentatively scheduled for 7 - 10 June 2004 in The Hague, The Netherlands.

- 6. Defect Handling for ISO/IEC 1989
- 6.1 WG4 N 0173 (DR 1989/001) -- Restricted program pointer with AS phrase on CALL
- 6.2 WG4 N 0174 (DR 1989/002) -- Distinguishing separators from editing symbols

The Nature of Defect section of this Defect Report is not clear. The project editor for defect processing will revise this section.

- 6.3 WG4 N 0175 (DR 1989/003) -- Clarify FORMAT clause
- 6.4 WG4 N 0176 (DR 1989/004) -- Overlapping operands in RELEASE statement
- 6.7 WG4 N 0177 (DR 1989/007) -- SET statement problems -- object references
- 6.8 WG4 N 0178 (DR 1989/008) -- Call Convention and Entry Convention
- 6.9 WG4 N 0179 (DR 1989/009) -- Minor Comments
- 6.10 WG4 N 0180 (DR 1989/010) -- Parameterized Classes and Interfaces
- 6.13WG4 N 0181 (DR 1989/013) -- SET id TO class-name
- 6.17 WG4 N 0182 (DR 1989/017) Circular references with TYPEDEFs

## 7. Finalizer Technical Report

#### 7.1 Status

TR19755, Object finalization for programming language COBOL, has been approved by JTC1.

# 8. Class Library Technical Reports

#### 8.0 NWIs:

#### WG4 N 0185 -- XML TR

The initial efforts for reading and writing XML from within COBOL programs should follow the data model (native syntax) rather than the object model (class library). The committee discussed ways of improving and strengthening the document. Consensus to pursue submission to JTC1 as a New Work Item was reached.

## WG4 N 0186 -- Collection Class Library TR

Consensus to pursue submission to JTC1 as a New Work Item was reached.

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#### 8.1 Schedules:

The schedules for XML and for Collection Class Library (WG4 N 0183 -- XML TR Schedule and WG4 N 0184 -- Collection Class Library TR Schedule respectively) will be adjusted appropriately once the associated Technical Reports have been approved as New Work Items.

#### 8.2 Collections

Straw poll: The Technical Report for Collections should provide support for collections of typed object references as well as universal object references. Yes -- 13; No -- 0; Abstain -- 0.

Straw poll: The Technical Report for Collections should provide support for static iterators. Yes -- 8; No -- 0; Abstain -- 5.

Straw poll: The Technical Report for Collections should support support for dynamic iterators. Yes -- 0; No -- 3; Abstain -- 10. .

#### 8.3 XML

Mr. Schricker will prepare a Technical Report based on the current J4 document for further processing.

# 9. Future plans

Straw poll: The target date for the next revision of the standard shall be June 2008, and meeting that target date shall constrain the feature content in that revision. Yes -- 10; No -- 1; Abstain -- 1.

Straw poll: Requests for new features in the language that do not extend the functional capabilities of the language are ineligible for inclusion in the next revision to the standard. Yes -- 13; No -- 0; Abstain -- 0.

# 9.0a Introduction of New Symbols

The committee discussed whether we would move toward a more "shorthand" form of the language, and reached consensus that we would not. There are cases in which a short form may be desirable to increase readability of expressions in COBOL programs, particularly in cases in which fully-expressive forms actually detract from legibility and comprehensibility.

The committee generally opposes the further addition of symbolic abbreviations to the language.

# 9.1 Evaluation of input from the workshop

The items discussed in the COBOL workshop are covered in Agenda Item 9.2a below. Native COBOL syntax for XML manipulation is also discussed in Agenda Item 8.0 above.

#### 9.2 Revision or amendment of ISO/IEC 1989

The consensus of the committee is that we should move toward a revision rather than an amendment.

# 9.2a Candidate Features for a Future Revision (J4/03-0116, J4/03-0144)

Additional criteria established during examination of the items on this list (in order of establishment, not priority) were:

Increase relevance in today's environment; Enhance portability; Extend functional capability; Remove capricious restrictions.

The list submitted by J4 (as document J4/03-0116) was examined by the committee, and the level of support and the estimated work effort for each feature assessed. For certain features, there was strong support for consideration for a future effort, but not for the next revision of the standard.

Native syntax for XML handling: A Technical Report is already in process; incorporation of this item in the next revision is presumed.

Dynamic tables: Mr. Karlin, Mr. Piggott and Ms. Nutsford have volunteered to work on the proposal. Straw poll: Should this item be on the mandatory list for the next revision: Yes -- 13; No -- 1; Abstain -- 1.

Function pointers: Ms. Bennett has volunteered to work on the proposal. Straw poll: Should this item be on the mandatory list for the next revision? Yes -- 10; No -- 0; Abstain -- 5.

Asynchronous processing: Mr. Schricker will ask Mr. Lanam to work on the proposal. Straw poll: Should the work item include the direction that this capability be investigated, and included in the next revision if it proves feasible within the required time frame? Yes -- 14; No -- 0; Abstain -- 1.

Variable length data items: Ms. Nutsford and Mr. Ebbinkhuijsen have volunteered to assist Mr. Piggott in refining Mr. Piggott's current proposal on this topic. Straw poll: Should this item be on the mandatory list for the next revision: Yes -- 14; No -- 0; Abstain -- 1.

Command line and environment variables: Mr. Klink has volunteered to work on this proposal. Straw poll: Should the work item include the direction that this capability be investigated, and included in the next revision if it proves feasible within the time frame? Yes -- 9; No -- 1; Abstain -- 5.

Method overloading: Mr. Karlin has volunteered to work on this proposal. Straw poll: Should the work item include the direction that this capability be investigated, and included in the next revision if it proves feasible within the required time frame? Yes -- 8; No -- 0; Abstain -- 7.

Increase size limit of nonnumeric literals: Mr. Ebbinkhuijsen has volunteered to work on this proposal. Committee consensus is that this be on the mandatory list for the next revision.

Locale on upper and lower case: Ms. Bennett has volunteered to work on this proposal. Committee consensus is that this be on the mandatory list for the next revision.

Structured constants; Mr. Stevens has volunteered to work on this proposal. Committee consensus is that this be on the mandatory list for the next revision.

Pipes: Mr. Schricker will ask Mr. Lanam to work on this proposal; Mr. Klink has volunteered to assist. Committee consensus is that this be on the mandatory list for the next revision.

Increase minimum maximum for record locks: Mr. Grealish and Mr. Ebbinkhuijsen have volunteered to work on this proposal. Committee consensus is that this be on the mandatory list for the next revision.

Function for current-date in ISO format; Mr. Ebbinkhuijsen and Mr. Grealish have volunteered to work on this proposal. Committee consensus is that this be on the mandatory list for the next revision.

Remove "hardware" from ACCEPT GR2: Mr. Stevens has written a detailed proposal for submission to J4 on this subject Straw poll: Should this be on the mandatory list for the next revision? Yes -- 11; No -- 1; Abstain -- 1.

New relational operator <> for inequality: Mr. Stevens has written a detailed proposal for submission to J4 on this subject. Straw poll: Should this be on the mandatory list for the next revision? Yes -- 9; No -- 4; Abstain -- 0.

Initialize file section, working-storage, local-storage: Mr. Ebbinkhuijsen has volunteered to work on this proposal. Straw poll: Should this be on the mandatory list for the next revision? Yes -- 5; No -- 8; Abstain -- 0.

The consensus of the committee is that the items in the list of candidates submitted by J4 that are not explicitly addressed above should be considered beyond the scope of the next revision.

# 9.3 Future meetings

The next WG4 meeting is tentatively scheduled for 7 - 10 June 2004 in The Hague, The Netherlands,

### 10. Review and approval of resolutions from this meeting

The following are the resolutions from this meeting, which are also reported in WG4 N 0188.

1. ISO/IEC JTC1/SC22/WG4 requests its convener to submit new work item proposals for two technical reports, "Native COBOL syntax for XML support" and "Collection classes", on behalf of WG4, unless National Body submission is offered and the convener determines that would be advantageous.

Approved unanimously.

2. ISO/IEC JTC1/SC22/WG4 requests its convener to prepare a new work item proposal for a June 2008 revision of the COBOL standard, for consideration by WG4 at its next meeting. This proposal shall contain and be limited to the items identified in the following two lists of new and revised features. The first list contains items that are required to be in the next revision. The second list contains items that shall be included unless J4 determines they cannot be completed in the time frame requested by WG4.

# 1 - Required in Next Revision:

- Native syntax for XML.
- Collection classes.
- Dynamic tables.
- Function pointers.
- Variable length data items
- Increase size limit of non-numeric literals.
- Locale on upper and lower case functions
- Structured constants.
- Pipes.
- Increase minimum maximum for record locks.
- Function for current date in ISO-standard format.
- Remove "hardware" from GR2 of the ACCEPT statement.
- New relational operator <> for inequality.

# 2 - Pending Investigation by J4:

- Asynchronous Processing.
- Command line and environment variables.
- Method overloading.
- Finalizer contingent on results of the investigation of Asynchronous Processing.

Approved unanimously.

3. ISO/IEC JTC1/SC22/WG4 requests that J4 proceed with the investigations and preparation of specifications associated with a June 2008 COBOL revision, as described in resolution 2 above, for first CD submission by December 2004. J4 is requested to report their concerns and the status on their progress at least once per six months to the convener of WG4.

Approved unanimously.

4. ISO/IEC JTC1/SC22/WG4 expresses its thanks to the convener, Mr. Don Schricker, and to his wife Penny for their hospitality and kindness in inviting and welcoming the meeting members to their home on the evening of June 27 and likewise express their appreciation for the entertainment provided there by Mr. Bob Karlin, singing with his barbershop quartet friends, and by Mr. Chuck Stevens, playing his flute.

Approved unanimously.

<ol><li>Close of the meetin</li></ol>	g	į	ľ	•	
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With resolutions having been approved, the chair declared the meeting adjourned at 1638 hours PST, Saturday June 28, 2003.

End of report	

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## Attachment 1

Final Agenda

ISO/IEC JTC 1/SC 22/WG4 - COBOL Meeting 24 26-28 June 2003

#### Location:

#### **Alexis Park Resort Hotel**

375 East Harmon

Las Vegas, Nevada 89109

- 1. Opening of the meeting: 9:00 am, Thursday, 26 June 2003
- 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 Approval of agenda
- 2.8 Approval of Minutes of Meeting 23, September 2002 (WG4 N 0169)
- 3. JTC1 or SC22 information affecting the group
- 4. Liaison reports
- 4.1 The Open Group
- 4.2 WG11, Binding Techniques
- 4.3 SQL
- 4.4 WG20
- 5. Preliminary discussion of future meetings
- 6. Defect Handling for ISO/IEC 1989
  - 6.1 WG4 N 0173 (DR 1989/001) Restricted program pointer with AS phrase on CALL
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# 6.17 WG4 N 0182 (DR 1989/017) - Circular references with TYPEDEFs

7.	Finalizer Technical Report
7.1	Status
8.	Class Library Technical Reports
8.0	NWIs
	WG4 N 0185 – XML TR
	WG4 N 0186 - Collection Class Library TR
8.1	Schedules
	WG4 N 0183 - XML TR Schedule
	WG4 N 0184 - Collection Class Library TR Schedule
8.2	Collections
8.3	XML
9.	Future plans
9.1	Introduction of New Symbols
9.2	Evaluation of input from the workshop
9.3	Revision or amendment of ISO/IEC 1989
9.4	Candidate Features for a Future Revision (J4/03-0116, J4/03-0144)
9.5	Future meetings
10.	Review and approval of resolutions from this meeting
11.	Close of the meeting: end of day 28 June 2003

Friday evening: 6:30 - Dinner at Don's

Daily schedule:

Meeting start: 9:00 am

Breaks and lunch time to be determined

Meeting stop: 6:00 pm