INTERNATIONAL ELECTROTECHNICAL COMMISSION

TECHNICAL COMMITTEE No. 65B:
INDUSTRIAL-PROCESS MEASUREMENT AND CONTROL

WORKING GROUP 7/TASK FORCE 3:

PROGRAMMING LANGUAGES FOR PROGRAMMABLE CONTROLLERS (IEC 61131-3, -8)

MINUTES OF MEETING

COCOA BEACH, FLORIDA, USA 22-24 JAN 2007

I. ATTENDANCE AND ROSTER

J. CHRISTENSEN USA (Project Leader)
R.KRETSCHMANN USA (SC65B/WG7 Convenor)
A. MARTEL Canada (O³NEIDA Observer)

H.-P. OTTO Germany (Expert)

M. VISTE USA (Expert)

The combined SC65B/WG15 and WG7/TF3 Roster is updated and accessible at http://www.holobloc.com/stds/iec/sc65bwg7tf3/html/wg6.htm.

ACTION ITEM (JHC): Add Mr ROCCHI to roster and update Mr RUSSO's data per R. KRETSCHMANN's list.

ACTION ITEM (AM): Provide JHC with updated contact information for A. VALENTINI. STATUS: DONE.

ACTION ITEM (HPO): Provide JHC with updated contact information for C. DIEDRICH.

II. REVIEW OF MINUTES OF PREVIOUS MEETING

Minutes of the previous meeting, 65B/WG7/TF3(PRAGUE/MINUTES), available online at

http://www.holobloc.com/stds/iec/sc65bwg7tf3/minutes/prg03_tf3.doc, were reviewed and approved.

III. REFERENCE DOCUMENTS

Reference documents for this meeting include:

- \bullet The published versions of IEC 61131-3, -8, and IEC 61499-1, -2 and -4.
- "Errata for IEC 61131-3 2nd Edition" at http://www.holobloc.com/stds/iec/sc65bwg7tf3/comments/pt3e2err.doc
- Corrigenda from PLCopen at <u>http://www.holobloc.com/stds/iec/sc65bwg7tf3/comments/PLCopenErrPt3e3.pdf</u>
- Proposed additions from SC65B/WG7/TF3 at http://www.holobloc.com/stds/iec/sc65bwg7tf3/comments/pt3e3add.htm
- Proposed Addenda from PLCopen at http://www.holobloc.com/stds/iec/sc65bwg7tf3/comments/PLCopenErrP t3e3.pdf.

IV. STATUS OF DOCUMENTS

IEC 61131-3, 2nd Edition is **published** as IEC 61131-3(2003-01), Programmable controllers - Part 3: Programming languages, with a maintenance result date of 2007.

IEC 61131-8, 2nd Edition (is published as IEC/TR 61131-8(2003-09), Programmable controllers - Part 8: Guidelines for the application and implementation of programming languages, with a maintenance result date of 2008.

NOTE (from Prague minutes): 61131-8 3rd Ed., due for maintenance in 2008, will discuss how to migrate within the 61311-3, 3rd Ed., 61499-compliant device/resource architecture architecture to a consistent, distributable application architecture, e.g., by replacing rising-edge Boolean variables by events, etc.

V. LIAISON REPORTS

Mr KRETSCHMANN presented a summary of the SC65B/WG7 report to SC65B at the Berlin meeting on 2006-09-28, including membership and status of documents.

Of particular interest and difficulty is the third section of the proposed IEC 61131-6, dealing with safety software both for the embedded system itself and for its programming environments.

Mr KRETSCHMANN reported that the Category D Liaison for PLCopen has been approved by the IEC SMB (Standards Management Board).

NOTE: An FTP server with working drafts of all Parts of IEC 61131 is available at ftp://ftp.iec.ch. Contact Mr KRETSCHMANN for details on username and password.

Mr VAN DER WAL presented a report on current and completed projects of PLCopen. Of particular interest are the PLCopen specifications on: 1) Use of 61131-3 in safety applications; 2) Use of 61131-3 in motion control specifications; 3) XML exchange format; 3) Performance testing. (1), (2) and (3) are publicly available from the PLCopen website at http://www.plcopen.org, while draft materials of (4) are currently available to PLCopen members only.

Mr VAN DER WAL reported on the lists of proposed corrigenda and addenda developed at the recent meeting of PLCopen TC1 (Standards), which will be considered at this meeting.

VI. PREPARATION OF IEC 61131-3 3RD EDITION DOCUMENT FOR COMMENTS

The main agenda item for this meeting consists of preparation of a DC (Document for Comments) version of IEC 61131-3, $3^{\rm rd}$ Edition, as prescribed in Annex B of the IEC supplement to the ISO/IEC Directives. This consists of the following tasks:

- The Errata from SC65B/WG7 and Corrigenda from PLCopen, listed in item III above, were considered and an updated document (pt3e2err.doc) was developed, containing a list of recommended changes for incorporation into a new DC based on the FDIS of IEC 61131-3, 2nd Ed. ACTION ITEM (JHC): Incorporate all recommended changes into draft document, pt3e3wd0_0.doc. STATUS: In progress.
- Proposed Addenda from PLCopen were considered and list of requests for clarification and further development was

61131-3, 3rd Ed.

prepared for consideration by PLCopen Technical Committee 1 (Standardization). **ACTION ITEM (EVDW):** Prepare proposals as requested for use in responses to DC circulation or in subsequent work on 61131-3, $3^{\rm rd}$ Ed.

• The list of proposed additions from SC65B/WG7/TF3 was considered and an updated document (pt3e3add_sorted.doc) was developed, containing a list of recommended additions for incorporation into the new DC based or in future drafts of IEC 61131-3, 3rd Ed.

ACTION ITEM (JHC): Incorporate all agreed changes into draft document, pt3e3wd0_0.doc. STATUS: In progress.

ACTION ITEM(HPO, EVDW):): Prepare proposals as requested for use in responses to DC circulation or in subsequent work on

Multiple proposals for harmonization of IEC 61131-3 with IEC 61499 were considered. The responses to these proposals are consolidated in the document pt3e3add.doc. The only action resulting from these considerations is the circulation of a proposed informative Annex (annexh_0.0.doc), "Proposed informative Annex to IEC 61131-3 - Interoperability with IEC 61499 devices," in conjunction with the DC for consideration by National Committees.

The following **NOTE** has been added: "This document is submitted for consideration by National Committees (NCs) in conjunction with the circulation of a Document for Comments (DC) on preparation of a $3^{\rm rd}$ Edition of IEC 61131-3. NCs are requested to comment on the proper handling of this proposal, for instance by addition to IEC 61131-3 as an informative Annex, inclusion in the $2^{\rm nd}$ Edition of IEC 61499-3 during its maintenance cycle in 2008, inclusion in the $3^{\rm rd}$ Edition of IEC 61131-8 during its maintenance cycle in 2008, or other options to be recommended by NCs."

VII. ADMINISTRATIVE MATTERS

It was agreed that maintenance of IEC 61131-3 and -8 will be carried out by SC65B/WG7/TF3 in close cooperation with the administration of SC65B/WG7, rather than by SC65B/WG15 in liaison with SC65B/WG7.

In preparation for the eventual retirement of Mr CHRISTENSEN, he will continue as a US Expert to SC65B/WG7 and Mr. OTTO will assume the duties of Coordinator of WG7/TF3, by agreement with Mr KRETSCHMANN, Convenor of SC65B/WG7.

VII. SCHEDULE FOR FUTURE WORK

- MARCH 31 (JHC): Complete DC document, logs of corrections and additions, send to TF3 and RJK.
- APRIL 15 (RJK): Work with SC65B Secretariat to circulate submitted documents
- NOW-OCT(?) (HPO, EVDW): Develop requested proposals for additions, circulate to TF3 and submit with NC comments on DC or bring to next meeting as appropriate.

 \bullet OCT(?)(DATE AND VENUE TO BE COORDINATED WITH WG7): Next TF3 meeting to consider NC comments on DC and prepare CD (CDV?) of 61131-3, $3^{\rm rd}$ Ed.

Respectfully submitted,

James H. Christensen, Coordinator SC65B/WG7/TF3