

**IEEE 1451.4 Standard Working Group  
Telephone Meeting, August 8, 2002  
Meeting Minutes, issued August 9, 2002, approved Aug 22, 2002**

Chair: T. Licht

Secretary : P. Hufnagel

Attendance:

Jorgen Baekke, [1451dot4@baekke.com](mailto:1451dot4@baekke.com)

Mike Dillon, Modal Shop, [Mdillon@modalshop.com](mailto:Mdillon@modalshop.com)

Fernando Gen-Kuong, Endevco, [Fernando@endevco.com](mailto:Fernando@endevco.com)

Paul Hufnagel, Kistler, [Paul.Hufnagel@kistler.com](mailto:Paul.Hufnagel@kistler.com)

Torben Licht, B&K, [Trlicht@bksv.com](mailto:Trlicht@bksv.com)

David Potter, National Instruments, [David.Potter@ni.com](mailto:David.Potter@ni.com)

Bill Schuh, Watlow, [BSchuh@watlow.com](mailto:BSchuh@watlow.com)

1) Minutes of Previous Meeting

- a) Minutes of the 08-01-02 meeting approved.

2) Patent discussion: B. Schuh

- a) Abstract of Watlow patent:

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[http://www.1451dot4.com/presentations/080802/US05857777\\_.pdf](http://www.1451dot4.com/presentations/080802/US05857777_.pdf)

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- b) Patent #5,857,777, filed: 1996, issued: Jan 12, 1999, inventor: W. C. Schuh.
- c) Primarily concerned with temperature measuring devices, the patent deals with the storage of analog correction polynomial coefficients, in EEPROM, within the sensor. Wording appears to be specific to temperature sensors.
- d) It appears that the patent will not affect the release of P1451.4, but may affect implementers using temperature sensors, such as TC, RTD and thermistors. There may be an effect on IEEE Std 1451.2-1997, due to the 1996 filing date of the patent.
- e) Watlow may be willing to license the patent to users. **Action: B. Schuh to determine whether licensing is an option.**
- f) **Action: Agenda item for the Working Group is to discuss with K. Lee, the IEEE policy on this patent.**

3) IEPE Pressure Transducer Template proposal: M. Dillon

- a) Discussion of pressure template, proposed for addition to the IEEE list of templates.

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<http://www.1451dot4.com/presentations/080802/IEEE IEPE Pressure Template Property Definition V2.doc>

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- b) Question raised on whether the output voltage represents an AC or DC signal. Does a DC value represent the actual physical quantity being measured or does it represent a peak or RMS AC value, and is it an instantaneous or average value?
- c) Is the sensor output a voltage or a current (for example, 4-20 mA)?
- d) Tags are required to allow the above definitions to be made.
- e) Definitions for linearity and sensitivity have been added, at full scale, as well as at an alternate pressure, (linearity@alt).
- f) **Action: M. Dillon and G. Foote will collaborate to determine whether efforts on pressure and general templates have resulted in any redundant tags.**
- g) As presented, the template can accommodate 12.75% non-linearity. A suggestion was made that this is a high value and could be reduced to 2.55%, to allow a resolution of 0.01%, in the same bit count. **Action: M. Dillon will edit to make this possible.**

4) Extended Functionality:

- a) Guidelines for the implementation of extended functionality need to be prepared. Presently nothing defines how extended functionality will work. **Action: J. Baekke may have some ideas on this topic.**

b) The DSC Family Codes need to be referenced in the Template Description Language.

5) Template Organization: D. Potter

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[http://www.1451dot4.com/presentations/080802/Template\\_organization\\_may15.doc](http://www.1451dot4.com/presentations/080802/Template_organization_may15.doc)  
[http://www.1451dot4.com/presentations/080802/Comments\\_Template\\_Organ.doc](http://www.1451dot4.com/presentations/080802/Comments_Template_Organ.doc)  
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- a) There has been no concrete feedback from the group back to N.I. on the proposal for 'non-IEPE' templates (bridge, voltage, current, RTD, force, load etc.). NI has received some feedback outside of the group, and which has been added to the current revision of the proposal.
- b) While the bridge template may basically support them, force and load cell templates may get quite complex, and may be required to contain calibration and traceability data.
- c) The proposal contains a calibration template description. How is this used? **Action: G. Foote to explain.**
- d) How is the UGID used with extended templates? **Action: J. Baekke to propose a technique.**
- e) Caution from J. Baekke on using too many sub-templates simultaneously, due to the use of about 10 bits to mark each subtemplate.
- f) Discussion on locating the template descriptions in an Annex to the Standard.
- g) Action: D. Potter and G. Foote will revise the proposal to contain any feedback from the Working Group, for the Aug 22 meeting.

8) Manufacturer Codes: T. Licht, M. Dillon

- a) M. Dillon has added text to the IEEE letter that requests distribution of manufacturer codes and templates, free of charge.
- b) M. Dillon and K. Lee are collaborating on the letter content and wording.
- c) The formation of a standing review committee on templates, to maintain and expand the data base, has been requested, in the letter.
- d) Questions remain on the administration of the family codes.
- e) A suggestion is made that all lists to be administered by the IEEE be added to the request, at this time, even if the lists aren't complete.

9) Action Items:

- a) Secretary has compiled a list of Action Items for the release of the Standard, as discussed at the Austin Meeting. The Secretary will keep the list current.  
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[http://www.1451dot4.com/presentations/053002/1451dot4\\_ACTIONS\\_30\\_May\\_02.doc](http://www.1451dot4.com/presentations/053002/1451dot4_ACTIONS_30_May_02.doc)  
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10) New Business:

- a) none this week

11) Face-to-face Meeting, and Sensors Expo, Boston:

- a) No separate IEEE booth will be used in Boston. The Plug-and-Play demo will be in the National Instruments booth, and all manufacturers may have individual demos in their own booths.
- b) The date and location of a FTF meeting will be discussed at the Aug 22 Telcon Meeting. Date being considered is w/o Sept 30, at NIST. **Action: T. Licht will contact K. Lee about having a meeting at NIST.**

12) Next Meeting:

- a) Next Telcon: Thurs, Aug 22, 2002, 2:00 pm EDT
- b) There will not be a Telcon on August 15 due to low attendance
- c) Adjourn: 3:32 pm EDT.