

Dear NTCIP Field Device Testing Needs Workshop Participant;

We would like to thank you for your participation and input during the NTCIP Field Device Testing Needs Workshop on April 22, 2003. Your contributions were valuable and critical to the advancement of the ITS Standards Program.

The NTCIP Testing and Conformity Assessment Working Group (TCA WG) met on April 23 and 24 to discuss and act on your needs. As a result, the TCA WG has identified eight major themes reflecting your current and long term needs. Wanting to ensure that we have appreciated your perspectives, a compilation of these themes are summarized below:

- Certification of testing laboratories, testers and tools,
- Test Procedures and Guides which support functional requirements of End-Users,
- Automated tools that support consistent specification development and testing / test procedures,
- One-Stop forum to exchange experiences and information, obtain standards, and secure training and assistance,
- Mechanism which tests the real world physical environment,
- An institutional framework supporting deployment and long term maintenance of standardized products and systems,
- Minimized complexity of the Standards and associated information, and clear articulation of terminology and definitions for and to End-Users; and,
- Near term availability of stable standards and standardized products.

To address these eight themes, the TCA WG has provided a discussion and background on each in the attached document. Recognizing that some of the action items are outside the authority of the TCA WG, we will actively work to resolve and champion a resolution supporting your interests.

If we have not fully appreciated the context of your current and long term needs, or you would like to remain involved in addressing these needs through the Working Group, please contact our co-chairmen; Mr. Steve Dellenback (###-###-####) or Mr. Joe Stapleton (###-###-####).

NTCIP Field Device Testing Needs Workshop Listing of Current and Long Term Needs – Follow Up and Responses

Certification of testing laboratories, testers and tools

To advance and identify feasible options of a Certification Process, the Work Product identified by the Testing and Conformity Assessment Working Group (TCA WG) will be a Feasibility Study. This will identify the pro's and con's of various alternatives and approaches. A draft will be reviewed for comment no later than October 2003. Once completed, the Feasibility Study will be presented to the NTCIP Joint Committee.

Test Procedures and Guides which support functional requirements of End-Users

The development of a Test Procedure Template is a current Work Item for the TCA WG. An initial version is currently available and under review. The Testing Procedures Template will be the foundation for application specific Test Procedures (such as DMS, ASC ESS etc.).

As a result of your input during the workshop, an executive summary of this initial and final version of the Test Procedures Template will also be composed. It will be available through www.ntcip.org after our July 2003 meeting.

The Test Procedures will reflect the necessary functionality, as expressed during our April 22 Workshop; this will be further developed by the application specific working group. Your continued input to this process is encouraged.

Realizing that incremental steps are manageable and acceptable, our efforts will reflect this prudent approach. This will allow the entire transportation community to gain valuable experience as part of an overall migration to a conformance and compliance testing process.

Finally, to ensure that deploying agencies are able to clearly deliver a project that utilizes standards, a guide on how to conduct and reflect the necessary testing efforts and checkpoints will be developed. This will be a work product of the TCA WG.

Automated tools that support consistent specification development and testing / test procedures

The TCA WG agrees that automated tools that support consistent specification development and testing / test procedures is of value. This will likely be reflected in our feasibility study as identified in the first theme on certification.

Realizing that any advancement or the availability of such tools are beyond the charter of the TCA WG, involved organizations and entities will likely play a key role in realizing such tools.

The FHWA has a Dynamic Message Sign Application Workshop that focuses on the development of a specification for a DMS. This approach supports the End-Users interest to customize procurements, and support a consistent specification development process. This is currently being expanded to support Environmental Sensor Stations. These workshops may be requested through your local FHWA Division Office.

Currently available through McTrans, the SpecWizard, may accommodate your interim needs. Information is available at:

<http://mctrans.ce.ufl.edu/featured/SpecWizard/>

A number of commercially and publicly owned testing tools are also available. A compilation is not currently available. The FHWA Field Support Team, or Peer-to Peer Program, may be able to assist you with your specific needs in the interim. Their contact information is available via www.its-standards.net and www.its.dot.gov/peer/peer.htm respectively.

Realizing the balance between a “single” procurement specification, and the interest to customize a deployment, the Working Group welcomes insight and input to further balance these competing views.

One-Stop forum to exchange experiences and information, obtain standards, and secure training and assistance

The web sites located at www.its-standards.net, and www.ntcip.org have a significant amount of information on standards, including case studies, contacts, and a deployment forum (an electronic dialog). Efforts are underway to have a voluntary section of the NTCIP web site that will allow for the posting of information.

Realizing the interest to ease the navigation and access of information, the www.its-standards.net will be enhanced, with “User Friendliness and Navigation” as a priority.

The FHWA is developing an ITS Standards Toolbox. This Toolbox will map the Systems Engineering Process and identify its various resources, references and activities; including testing. This will be available on-line in the next several weeks via www.its-standards.net.

The TCA WG has developed an “Initial Assessment of the State of the Practice on NTCIP Testing.” We are currently seeking additional information and examples so we can accurately reflect what the Transportation Community is doing in these regards. Sample Test Procedures and Test Reports are of special interest, as are information and details of current and evolving test tools.

Upon completion of the Testing Guide for Users, options to provide training will also be explored as part of the Outreach, Education and Training Program. In the interim, individuals and agencies may draw upon the FHWA Peer-to-Peer Program, and the FHWA Field Support Team.

The currently published NTCIP documents are available from a single source. This may be accessed via <http://www.ntcip.org/order/>. An initiative is currently underway to make these documents available in Adobe PDF format at no charge.

The TCA will express the interest of one-stop-shopping to the Standard Development Organizations (SDO) and the Federal Highway Administration. It will be recommended that the available documents be listed by application and by standard. This will enable the End-User to identify and obtain all ITS Standards for a given application.

Of special note, the NTCIP Working Groups associated with Traffic Signals is currently scheduling a workshop on Traffic Signals. It will be held in Seattle during the week of July 21. Additional information will be available at www.ntcip.org and www.ite.org.

Mechanism which tests the real world physical environment

Testing beyond the NTCIP family of standards is outside the scope and authority of the NTCIP Joint Committee and the TCA Working Group. It however is a need and interest of the End-User Community.

Through the discussions associated with the certification of testing laboratories, testers and tools, a range of options will likely be considered beyond the communication standards. The resources required to establish and maintain any complimentary process that supports the range of User Needs will likely require a cooperative and coordinated effort among multiple entities. This effort will require the shared professional experiences, skills and resources. The TCA WG will support the discussion of options available, and welcomes your input and involvement to establishing the appropriate framework.

An institutional framework supporting deployment and long term maintenance of standardized products and systems

Through the various efforts reflected in the discussions above, the TCA WG will provide some anecdotal information to ITE / AASHTO on what expected testing and maintenance costs could be. It is desired that any framework capitalizes on the common interests of end users and minimizes project specific testing requirements for conformance to the standards. Compliance to the specification will remain a project and agency responsibility.

Minimized complexity of the Standards and associated information, and clear articulation of terminology and definitions for and to End-Users

The TCA WG will develop / refine definitions as the work items are advanced. These definitions will be provided to the NTCIP JC for inclusion in the NTCIP Guide (currently available at www.ntcip.org) and glossary / definition publications.

This information will also be incorporated into the standards web pages, in an User Friendly way.

We agree that the number and complexity of the standards is extensive. The TCA WG will forward this comment to the NTCIP Joint Committee who provides overall direction to the NTCIP standards development process.

Near term availability of stable standards and standardized products.

The work plan for the TCA WG was submitted to FHWA on May 16. Since the development of ITS Standards are primarily advanced through a voluntary and consensus process, we acknowledge that progress can be slower than preferred. To overcome this, many of the Working Group members continue to initiate and advance individual tasks in advance of full funding. Their efforts are welcomed and appreciated.

There is universal concurrence to the desire to have standardized products in the field. The TCA WG will forward this continued interest to the SDO and FHWA, with an emphasis of this being an interest of the End Users.