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IN THIS ISSUE

CONFORMANCE TESTING TAKES THE SPOTLIGHT

All of the major standard communications protocols are now placing an emphasis on conformance testing. Conformance Testing offers advantages to both equipment manufactures and end users.

The purpose of Conformance Test Procedures is to improve interoperability between devices by providing reasonable assurance that Masters and Outstations comply with key protocol specifications.

End users benefit from Conformance Testing through increased confidence that purchased devices will work in the system. By using standard features and requiring equipment to be Conformance Tested, end users can eliminate dependencies on proprietary functionality.

Equipment manufacturers also benefit from conformance testing. When end users specify industry-standard features and require conformance testing, markets are opened to the equipment manufacturers. This allows the manufacturers to focus on their differentiating competencies.

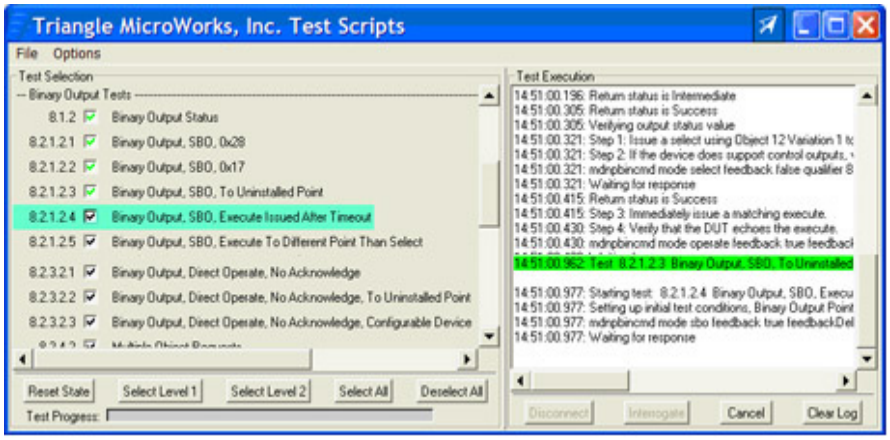
In addition, the web sites of some user groups give preferential listings to conformance tested products. Other perks, such as the right to use the User Group logo, may also be given.

dnp Distributed Network Protocol

The DNP3 User Group has recently updated its Conformance Testing Policy. The new policy allows self-testing, as well as independent certification (click here to read the new policy on the DNP3 UG web site). The Triangle MicroWorks, Inc. Test Harness Conformance Test Module is ideal for performing in-house certification and/or preparing for independent certification.

The optional Conformance Test Module automatically performs the *DNP3 Intelligent Electronic Device (IED) Certification Procedure* (Level 1 or 2, plus additional tests). The results of the tests can be saved to a file, which meets the requirements of the testing logs for self-certification.

The test configuration can also be saved to a file, facilitating rerunning these tests on a regular basis (e.g., with each release or as part of a regular regression test program). The configuration file may also be sent to the independent testing facility. With the device profile document and this configuration file, the testing facility can quickly set up their test beds, potentially resulting in lower costs to the equipment manufacturer.



Devices that have been tested (either through the self-test program or by an independent tester) are eligible to be listed on the DNP3 Users Group Conformance Tested Products web page. Conformance tested devices are also eligible to use the DNP3 Conformance Logo.

IEC
Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

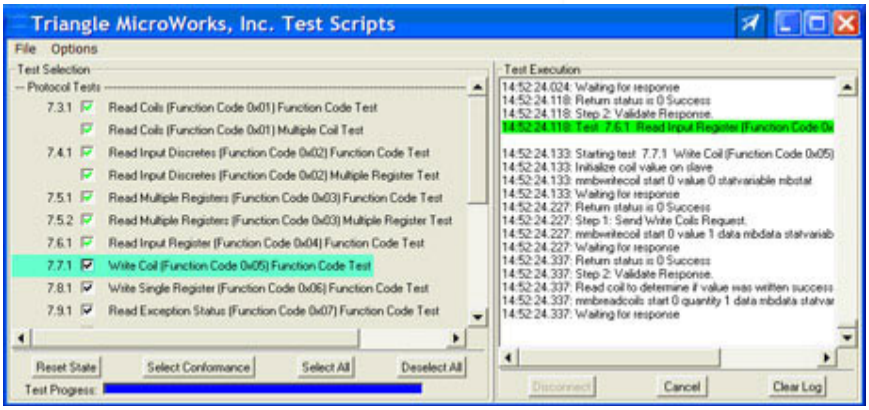
A draft of the Telecontrol Equipment and Systems Part 5-6 has been published by the IEC TC57 Working Group 3. The draft is a review of conformance testing guidelines for IEC 60870-5 companion standards.

Triangle MicroWorks, Inc. participates in IEC 60870-5 TC57 Working Group 3. The Test Harness Conformance Test Modules for these protocols will be updated to stay consistent with the official test procedures as they are approved. Customers with an immediate need for IEC 60870-5 Conformance Testing can purchase Triangle MicroWorks, Inc. regression tests. These tests are easily modified to match your device configuration and purchasers will receive a free upgrade to a GUI-based version of the official conformance test procedure when it is released.

Modbus-IDA
the architecture for distributed automation

Modbus-IDA has approved its conformance testing policy. The policy includes a controlled self-test program for conformance testing by member companies. Third-party testing is also available through approved test laboratories. (Click here to read the policy on the Modbus- IDA web site). The Modbus license for the Triangle MicroWorks, Inc. Test Harness includes the Conformance Test Module. This module is ideal for performing in-house certification and/or preparing for independent certification.

The Modbus Conformance Test Module performs the University of Michigan Conformance Test Procedure. Although this procedure is only defined for serial devices, the Test Harness supports running the applicable tests on Modbus TCP devices.



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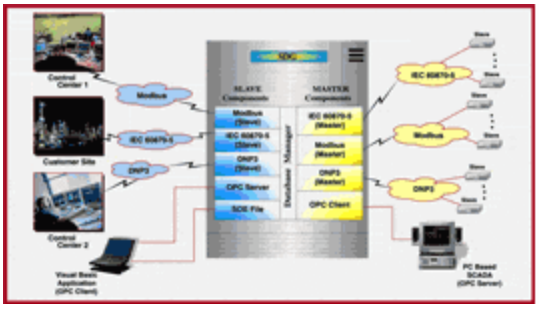
UPCOMING CONFERENCES

Please visit us in Booth 1023 at the DistribuTECH 2007 Conference in San Diego, CA from February 4 - 6

DISTRIBUTECH
February 4-6, 2007

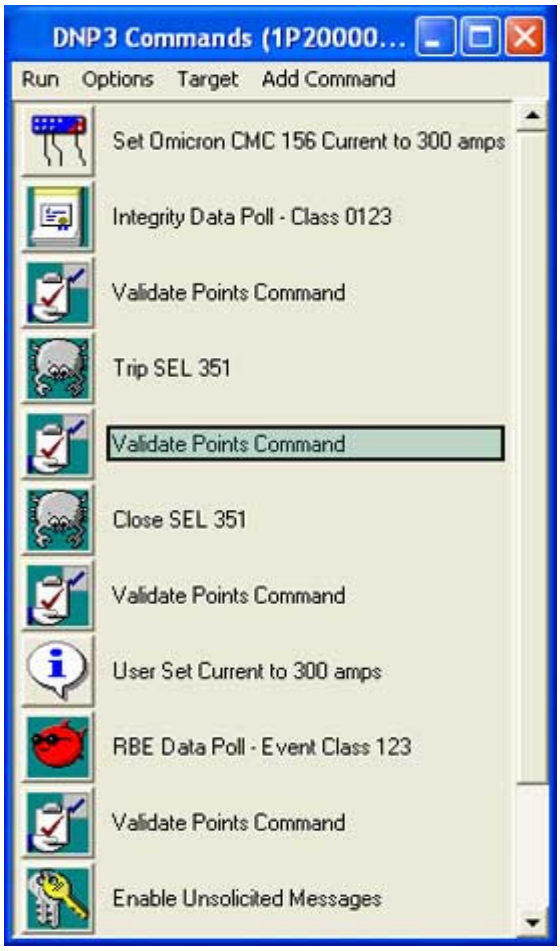
PRODUCT HIGHLIGHTS



SCADA Data Gateway (SDG)

The SCADA Data Gateway can now run as a Windows Service. A Windows Service can be configured to start automatically when the machine starts up, eliminating the need to log in. Additionally, the service is not easy to accidentally stop by a casual user, providing higher reliability of the control system. A protocol analyzer task can connect to the service to display communications status with field devices.

The SDG continues to be configured through the existing GUI interface application, but now includes a new application that can be run as a service. The SDG automatically handles registration of the OPC Server when execution is switched between the GUI and the service, simplifying configuration of the SDG. Using the same GUI interface as before, users can configure the SDG and verify it is operating properly. The SDG can then be configured to run as a service, using the same configuration files.



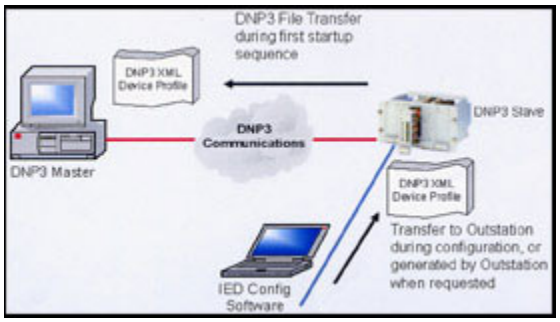
Communication Protocol Test Harness

In addition to protocol syntax testing and the protocol conformance tests mentioned above, the Test Harness GUI allows rapid development of device functional tests. Using the command window shown at left, a sequence of commands can be configured to run automatically and validate all the data sent through the communication protocol.

Commands may establish a condition in the Device Under Test through a communication protocol command, a dialogue box instructing the user to change the test conditions, or a command to the Omicron CMC156 or CMC256. Please contact Triangle MicroWorks, Inc. regarding support for other test equipment.

Back to Top

XML SELF-DESCRIPTION AND MAPPING DNP3 POINT LISTS INTO 61850 OBJECT MODELS



The DNP3 Technical Committee is working on methods to use XML to provide self description and map DNP3 point lists into 61850 object models. A draft is in the final review process, and a tutorial of how this process can be used with DNP3 can be viewed on our web site. These methods can be extended to the IEC 60870-5 and Modbus protocols in the future. More . . .

CURRENT RELEASE VERSIONS

Source Code Libraries

IEC 60870-5-101 Master:	**Version 3.00.46**
IEC 60870-5-101 Slave:	**Version 3.00.46**
IEC 60870-5-102 Master:	**Version 2.14**
IEC 60870-5-102 Slave:	**Version 2.13**
IEC 60870-5-103 Master:	**Version 3.00.46**
IEC 60870-5-103 Slave:	**Version 3.00.46**
IEC 60870-5-104 Master:	**Version 3.00.46**
IEC 60870-5-104 Slave:	**Version 3.00.46**
DNP Master:	**Version 3.00.46**
DNP Slave:	**Version 3.00.46**
DNP Peer-to-Peer:	**Version 3.00.46**
Modbus Master:	**Version 3.00.46**
Modbus Slave:	**Version 3.00.46**

WinIOTarg release versions match the corresponding Source Code Libraries.

Applications

SCADA Data Gateway:	**Version 2.40.08**
Protocol Test Harness:	**Version 2.00.48**

What's New, Click Here

PRODUCT EXPOSURE

For free posting of your product information, visit the IEC 60870-5 User Group Mail list and click on "Send us your product information".

Basic membership to the DNP Users Group also enables Implementers of DNP3 to post product information. Contact the DNP3 Users Group for membership details.

WANT MORE INFORMATION ON TMW PRODUCTS?

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DOWNLOAD a demo of the Test Harness or SCADA Data Gateway

TriangleMicroWorks.com/downloads.htm

TRIANGLE MICROWORKS, INC.

Back to Top

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