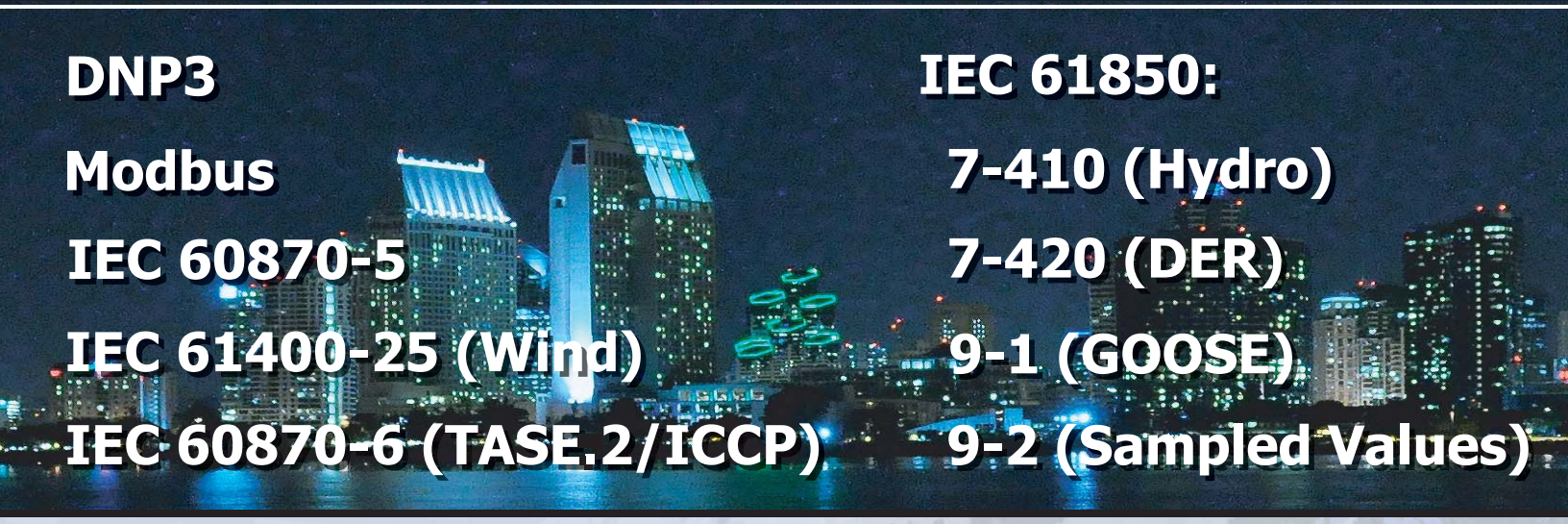
Save Time and Money on Your Next Project with Industry Standard Communication Protocols



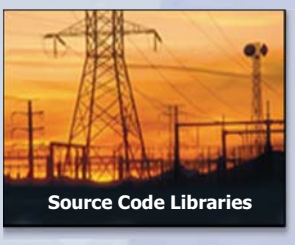
DNP3, IEC 60870-5, IEC 60870-6 (TASE.2/ICCP), and Modbus communication protocol standards are widely used in modern SCADA systems and have proven themselves in a wide array of mission critical applications under harsh operating environments. IEC 61850 and 61400-25 (Wind) are building upon this knowledge base to expand the scope of communication protocols used in tomorrow's SCADA Systems.

Triangle MicroWorks provides the resources to help you implement and use these protocols efficiently. Leverage our tools and expertise to:

- Add industry standard communication protocols to new or existing devices
- Interface with other devices using industry standard communication protocols
- Troubleshoot, test, and configure devices
- Learn communication protocols

All of our products include the first year of the Maintenance and Enhancement Plan, which includes resolution of any questions or compatibility issues that may arise in the field.

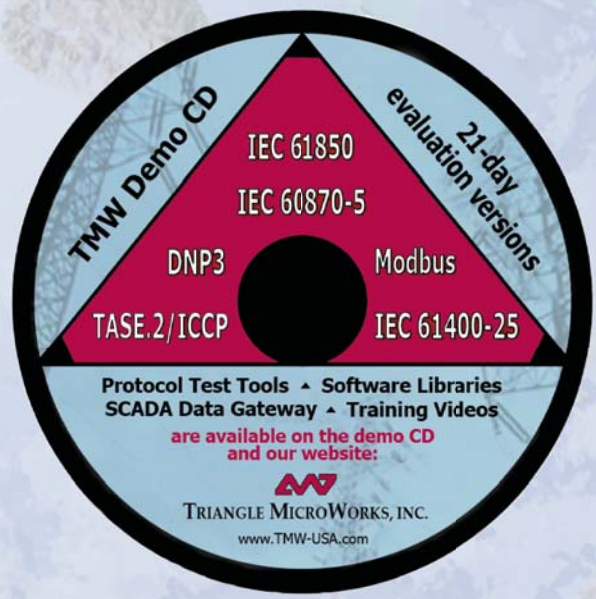
Communication Protocol Software Libraries



Available as:

- ANSI Standard C Source Code Libraries
- C++ (IEC 61850/IEC 60870-6 only)
- .NET Communication Protocol Components
- Server Front End Toolkit (no coding, configured by 61850 ICD file)

Incorporating our time-tested Software Libraries in your products will reduce development effort and free internal resources to work on company proprietary aspects of your products. Our proven compatibility with existing equipment reduces software development risks.



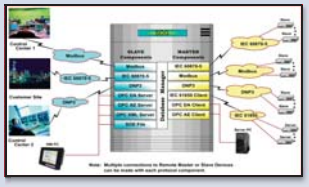
see reverse ▶

Triangle MicroWorks participates on Technical Committees of the following protocol governing bodies: IEC Technical Committee 57, UCA International Users Group, Modbus-IDA, DNP Users Group, and OPC Foundation.

Proven Solutions for Your Communication Protocol Development Needs

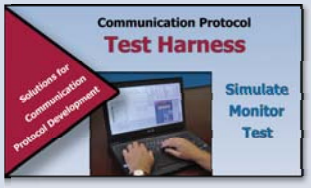
Continued from Front Side

OPC Client/Server, Data Concentrator, or Protocol Translator



The **SCADA Data Gateway** is a Windows™ application used by System Integrators and Utilities as an OPC Client/Server, Data Concentrator, or Protocol Translator. In addition to the Industry Standard Communication Protocols listed previously, it supports an ODBC Client and OPC (Data Access, XML Data Access, and Alarm & Events) for interfacing with Microsoft Visual Basic™ or Windows PC-based SCADA Systems such as Iconics GENESIS 32™, Wonderware InTouch™, and GE CIMPLICITY™.

Test, Troubleshoot, and Configure

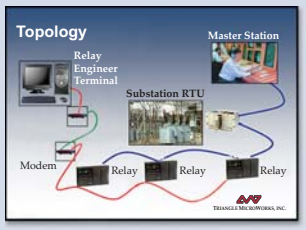


The **Communication Protocol Test Harness** is a Windows application that simulates Master or Outstation devices, monitors communications, or performs custom functional tests. It is configured through a Graphical User Interface (GUI) and may be extended with plug-ins using any .NET language, Python, or Tcl/Tk scripts. Example applications are included. An optional module is available to automatically perform the Conformance Test Procedures published by Technical Committees of each protocol.

The **61850 Test Suite** is a collection of Windows-based testing tools:

- **Hammer** - Test IEC 61850 & 60870-6 Servers; validate GOOSE, Report, Log, Control, and File Services.
- **Anvil** - Test IEC 61850 & 60870-6 Clients; provides GOOSE, Report, Log, Contol, and File Services; generate simulation data automatically, manually, or table driven.
- **SCL Forge** - Substation Configuration Language (SCL) and DNP3 XML Device Profile Editor.

Training/Education



Triangle MicroWorks offers cost-effective, **Web-Based Communication Protocol Training Videos** with 120-day unlimited access for your entire site. Quizzes and interactive exercises using the Communication Protocol Test Harness reinforce key concepts. The Table of Contents, search tool, and hyperlinks allow continued use as a reference to quickly research specific issues in the future. For free introductory videos on communication protocols and our products, visit videos.TriangleMicroWorks.com.

Engineering Support

Triangle MicroWorks can work with your development team to **further streamline the Source Code Library integration process**. Support options include contracting to implement a portion of the project or a complete turn-key solution, assistance with development of automated functional tests using the Communication Protocol Test Harness, and customizing our products for unique applications.

Visit our website to download demo versions of our products.

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