SCADA Data Gateway

**OPC Client/Server**

**Protocol Translator**

**Data Concentrator**

The SCADA Data Gateway (SDG) is a Windows™ application used by System Integrators and Utilities to collect data from, OPC Server, IEC 61850 Server IEC 60870-5, DNP3, or Modbus Slave devices and then supplies this data to other control systems supporting OPC Client, IEC 60870-5, DNP3, and/or Modbus communication protocols.

**PROTOCOLS**

▲ OPC Data Access Server 1.0a, 2.00, 2.05a, and 3.0 (OPC Certified™)
▲ OPC Data Access Client 2.00 and 2.05a (OPC Certified™)
▲ OPC Alarms and Events 1.00, 1.02, and 1.10 Server (OPC Certified™)
▲ OPC Alarms and Events 1.00, 1.02, and 1.10 Client
▲ OPC XML Data Access Server
▲ DNP3 – Serial and TCP/IP (Conformance tested per DNP3 Intelligent Electronic Device (IED) Certification Procedure Subset Level 2, Rev. 2005)
▲ IEC 61850 Client
▲ IEC 60870-5-101 – Basic Telecontrol Tasks
▲ IEC 60870-5-103 – Protection Equipment
▲ IEC 60870-5-104 – Network access for -101
▲ Modbus Serial ASCII/RTU, Modbus Plus, and Modbus TCP
▲ Translate to other protocols such as SNMP by combining the SDG with another OPC Client/Server

Note: Multiple connections to Remote Master or Slave Devices can be made with each protocol component.
Triangle MicroWorks is an active member in the IEC Technical Committee 57 Workgroup 03, UCA International Users Group, the OPC Foundation, the DNP3 Users Group (serving on both the Technical and Executive Committees), and the Modbus Organization. We are also proud to sponsor the IEC 60870-5 Maillist and maintain the associated website. Our communication protocol expertise will provide you with the highest quality software and technical support possible.

### FEATURES

- **OPC Certified™; Conformance tested per DNP3 Intelligent Electronic Device (IED) Certification Procedure Subset Level 2, Rev. 2005**
- Report by Exception (RBE) is supported (transmitting only data changes, saving communication channel bandwidth).
- **Supports selective logging of event data into a time-stamped Sequence of Events (SOE) log file.**
- **The Communication Protocol Analyzer Window displays and decodes transmitted and received messages.**
- Allows translation between data types and control methods from different protocols. Supports mapping of points between Master and Slave, two Master, and/or two Slave protocol components.

### HARDWARE

The SDG uses standard serial communication ports or Ethernet ports on a PC running Windows 7, Windows Vista, Windows XP SP2, Windows 2008 Server, Windows Server 2003, or Windows Embedded XP. Typical Windows-based programs compatible with the SDG include: Iconics GENESIS32™, GE Fanuc iFIX™ and CIMPLICITY™, Wonderware InTouch™, Tecnomatix FactoryLink®, Microsoft Visual Basic™, or any other program which is capable of acting as an OPC Client/Server. DNP3, IEC 60870-5, and Modbus are layered protocols in which the physical layer can be any serial communication standard such as point-to-point (RS232, RS422, etc.), multi-drop (RS485, fiber optic network, etc.), or via network connection (TCP/IP).

### PRICING

The base price for a SCADA Data Gateway without IEC 61850 is $1,000 USD per SCADA node for up to 400 points, or $2,000 USD per SCADA node for unlimited point count. This price includes two protocol components and the first year of the maintenance and Enhancement Plan. The IED 61850 Client component is only offered with an unlimited point count license. The base price for a SCADA Data Gateway with this component is $4,000 USD. This price includes one additional component and the first year of the Maintenance and Enhancement Plan.

Additional non-IEC 61850 components may be added for $500 USD each. The IEC 61850 Client may be added to an unlimited point count license for $2,500 USD.

**Example Pricing:**

<table>
<thead>
<tr>
<th></th>
<th>400 Points</th>
<th>Unlimited Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPC Data Access (DA) Server with gateway to IEC 60870-5-101 Master component</strong></td>
<td>$1000 USD</td>
<td>$2000 USD</td>
</tr>
<tr>
<td><strong>OPC DA Server and OPC Alarm &amp; Events Server with gateway to DNP3 Master component</strong></td>
<td>$1500 USD</td>
<td>$2500 USD</td>
</tr>
<tr>
<td><strong>Protocol Translator between DNP3 and IEC 60870-5-101</strong></td>
<td>$1000 USD</td>
<td>$2000 USD</td>
</tr>
<tr>
<td><strong>DNP3 Slave component with gateway to OPC Client</strong></td>
<td>$1000 USD</td>
<td>$2000 USD</td>
</tr>
<tr>
<td><strong>DNP3 Slave component with gateway to OPC Client and Modbus Master component</strong></td>
<td>$1500 USD</td>
<td>$2500 USD</td>
</tr>
<tr>
<td><strong>OPC Server &amp; IEC 60870-5-101 Slave with gateway to -104 Master &amp; -103 Master components</strong></td>
<td>$2000 USD</td>
<td>$3000 USD</td>
</tr>
<tr>
<td><strong>OPC Server &amp; IEC 61850 Client components</strong></td>
<td>N/A $4000 USD</td>
<td></td>
</tr>
</tbody>
</table>

Substantial discounts are available for volume purchasing. Contact Triangle MicroWorks to obtain a quote or visit our website [www.TriangleMicroWorks.com/downloads.htm](http://www.TriangleMicroWorks.com/downloads.htm) to download a full 21-day evaluation version of the product.

### SUPPORT AND UPGRADES

The Maintenance & Enhancement Plan provides a cost effective method for upgrading to new versions of the SDG as they are released. It also provides technical support by telephone, fax, or email. The **first year of the Maintenance & Enhancement Plan is free**. Future years may be purchased in advance at a 25% discount. The renewal price after the first year is 25% of the total purchase price. For example, the Maintenance Plan for the 400 point count SDG with two protocol components (i.e., OPC Server & IEC 6070-5-101 Master) would be $250 USD per year.

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Diagnostics Display. Built-in diagnostics includes status information and error counts that are exposed through OPC and can be mapped to a status point in other protocols. Separate diagnostics are available for the entire SDG and for each channel, session, and sector.

Mapping Information Display. All points are automatically mapped to the SDG’s OPC Server. Other mappings are assigned using simple drag and drop operations. Points may be mapped from Master to Slave, Master to Master, or Slave to Slave components.

Current value and quality status display. Displays current value, quality status, reported time, and data.

Multiple Window Support. Simplifies drag and drop operations, such as mapping points between protocols, as shown above, or viewing a separate protocol analyzer trace for each device, as shown below.