

SCADA



Visualize



Analyze



Optimize™



POWER-DELIVERY INDUSTRY CHALLENGES

In the past few decades, the Power-Delivery industry has encountered the following challenges:

- Deregulation and reregulation
- More complex power-transmission and distribution standards
- Demands for real-time information
- Additional power suppliers and sources that need to be integrated into existing systems
- Increased requirements to improve security to protect the integrity of the system
- New mandatory regulations from the government
- Growing demands for improvements in power quality, reliability and safety
- Burdens of an aging infrastructure and workforce

Wonderware recognizes the challenges with which your operation is faced: the need to make changes that cost-effectively accomplish your goals as you continue to provide reliable service to your customers and improve profitability for your investors.

You need a software provider that knows your business and already offers solutions to address these challenges.

EASY-TO-USE, EASY-TO-IMPLEMENT SCADA SOLUTIONS

In the late 1980s, Wonderware pioneered the use of the Microsoft Windows operating system in the automation marketplace. A cornerstone of our success has been our relentless pursuit of easy-to-use systems that are also easy to implement. That's why Wonderware software is used in more than 100,000 sites worldwide.

Capabilities

- Wonderware is an independent software vendor that can work with multiple hardware suppliers
- Power-delivery companies can layer their optimization and monitoring solutions on top of their existing systems
- Wonderware software connects to almost any device, regardless of the manufacturer

- Utilities can centrally manage and remotely deploy applications
- Personnel can securely view the company's operational information from anywhere, at any time.

Wonderware provides an impressively flexible, maintainable and secure SCADA software platform for the Power-Delivery industry. These solutions are built on and integrated with a single, open, scalable software architecture that can connect to virtually any automation system, remote terminal unit (RTU), intelligent electronic device (IED), programmable logic controller (PLC), database, historian or business system in use today. The open nature of this platform enables users to expand their existing power-delivery systems without having to buy new hardware or control systems.

Benefits

- Dramatic reductions in the time, effort and cost of integration
- Easy application creation and ongoing maintenance across remote facilities
- A substantial increase in the reliability, dependability and stability of the system

Simplified Change Management

Most of the devices used in the Power-Delivery industry are located on top of poles or in remote locations. Wonderware's software platform associates these devices with templates that contain all of the control information, such as scripts, alarms and communication methods. The ability to reuse these templates can save engineers a tremendous amount of time when automating additional substations and control devices. System reliability can also be greatly improved because existing templates are field-proven.

Performance Optimization

Wonderware Power Delivery SCADA solutions have many capabilities that can assist in improving visibility into the operation's profitability. Data, alarms and events from all parts of the operation can be aggregated and transformed into useful information that can be displayed in dynamic reports, trends and graphically to improve real-time decision-making.

ENABLING SOLUTIONS FOR:

- Load Profiling
- Flow Management
- Substation Automation
- Detailed Alarm Information
- Real-Time Visualization
- Supply-and-Demand Management
- Distribution System Monitoring
- Historical and Real-Time Power Analysis

Expansive Access to Information

Organizations in the Power-Delivery industry must capture increasingly more information because it's vital to their profitability and their ability to improve efficiency. Wonderware's historian combines front-end data collection with time-series extensions to an embedded Microsoft SQL Server relational database. The result is a historian that is:

- Very fast
- Cost-effective
- Hardware-independent
- Scalable in that it expands to adjust to changing needs
- Easy to use
- Requires minimal maintenance, posing no additional burden to IT

The historian also enables utilities to capture all of the information that they need and to access that information when they want it.

Report Generation

Wonderware software also makes it extremely easy to create multiple types of reports that contain time-based data for audit trails, generation profiles and system status.

Superior Operator Visualization

Wonderware's world-famous, award-winning software for visualization and automation process control offers outstanding ease of use and simple-to-configure graphics. Powerful wizards and the new Wonderware SmartSymbols enable users to quickly create and deploy customized applications that connect and deliver real-time information.

POWER DELIVERY

Monitor and Control from Anywhere

Wonderware offers several options for ensuring constant communication and control with remote systems.

Users can monitor and acknowledge alarms, change set points, hear the exact values of variables and operate equipment via telephone. Messages can also be sent to pagers, telephones and personal communication systems via e-mail, making acquisition of real-time information convenient and easy.



Wonderware provides powerful visualization and control

IT-Friendly Security

Wonderware takes a strong stance on security and has built-in features that enable authentication at every level of the automation process. Wonderware provides data security at the lowest possible level of granularity and extends the Microsoft Windows security model down to the physical-equipment layer, providing security capabilities that specifically match the requirements of the Power-Delivery industry.

One-Click Redundancy and Fault-Tolerant Systems

Wonderware offers one-click software redundancy for:

- SCADA nodes
- Communication devices
- Historical archiving
- HMI displays
- A separate backup control center in case of emergencies

In today's heightened security environment, utilities can be secure in knowing that their control system is operational every hour of every day, improving the reliability and dependability of power service to the community.

Greatly Reduced Total Cost of System Ownership

Power-delivery companies no longer have to be locked into a proprietary system that can be difficult to maintain and upgrade. Wonderware's open system solution

provides the flexibility to grow with changing needs while substantially decreasing the costs associated with creating, modifying and deploying automation solutions. Wonderware's Power Delivery SCADA solutions decrease life-cycle costs because:

- SCADA solutions are based on an open system that is inexpensive and easy to upgrade
- The underlying system is easy to maintain
- Creating and modifying applications is quick and easy
- System features include reusable object-oriented templates

Expand Field Management Capabilities

Wonderware's SCADA solutions can greatly increase the efficiency of field personnel because its mobile visualization features can enable them to more efficiently:

- Add new devices
- Calibrate and troubleshoot existing devices
- Verify real-time information

Wonderware offers a durable end reliable Industrial Tablet that comes pre-integrated with Wonderware's industry-leading software and can increase productivity by facilitating visualization and control without being tied to one station or location.

Device Communication

Wonderware works with more than 100 third-party product developers to offer an extensive selection of device integration servers and protocols in the industry, using protocols such as DNP 3.0 and Modbus. Wonderware SCADA solutions also offer open system connectivity to distributed control systems (DCSs), programmable logic control (PLC) systems, RTUs, IEDs and business reporting systems. Open interfaces like XML, OPC, OLE, SQL, Web Services, HTTP and SOAP enable Wonderware products to integrate with just about any third-party system, application or database.

GSM/GPRS concept from Klinkmann

Klinkmann has over 10 years experience in using wireless GSM/GPRS networks for remote automation: Klinkmann's communication software completing Wonderware platforms, GSM/GPRS-modems and controllers. The optimal use of mobile networks expands the possibilities in connections and monitoring.

Connecting to Enterprise Systems Using XML and Database Integration

Wonderware's Enterprise Integration Application leverages Wonderware's innovative software architecture to integrate virtually any automation system. It also incorporates technologies such as Microsoft's .NET XML platform and BizTalk Server 2004, OPC for real-time data connectivity and SQL/OLE database support for open database integration.



Wonderware provides real-time information from remote locations

GLOBAL NETWORK OF SUPPORT AND SERVICES

Wonderware is also committed to building strong customer relationships by providing a global network of system integrators. Wonderware has invested in a Certified System Integrator Program for SIs with expertise in SCADA solutions. This program helps Wonderware offer flexible solutions that suit customers' individual application needs.

In addition, Wonderware Technical Support and our worldwide network of Certified Support Providers (CSPs) provide consistent, high quality, localized service in more than 16 languages.

For more information go to:
www.wonderware.com/solutions/SCADA

PROVEN PERFORMANCE FOR POWER-DELIVERY SCADA SOLUTIONS

Wonderware is an industry leader in providing robust software that is very easy to use, upgrade and maintain. What's more, power-delivery customers need to have solutions provided by vendors who will be around to support you over the long term. Wonderware has proven itself

over the years as an independent vendor. But don't take our word for it - consider the experience of others by regarding the following real-world success story.

Compañía Nacional de Fuerza y Luz (CNFL) Costa Rica

Compañía Nacional de Fuerza y Luz (CNFL) is the main power-distribution company in Costa Rica. Currently CNFL commercializes 46% of the total power produced in Costa Rica (about 700kVA). CNFL has more than 1,800 employees to serve its 380,000 customers distributed over a network with more than 90 automated pole reclosers and 24 automated substations. The automation system installed monitors and controls approximately 15,000 tags.

From the time that CNFL began using the Wonderware solution, several benefits have been realized. Probably the most important benefit is the reduction of response time to power failures in the distribution network. By studying the occurrences of interruptions, CNFL has been able to identify weak points in the distribution network. This has helped CNFL to invest where it is really needed, optimizing its investments.

Another important benefit is that the information is now available through the network for all the authorized staff. Before this system was installed, if a historical report was required, it was necessary to request it from the operators of the control center, distracting them from their regular tasks.

These are just some of the benefits that CNFL has reached with this system and it is discovering new advantages every day!



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