



Ulteig

System Integration & SCADA

MAKE AN INVESTMENT IN UPGRADED FACILITIES FOR GREATER PEACE OF MIND



ULTEIG SOLUTIONS

- Historical Data Collection & Custom Reporting
- Alarm Scheme Design & Integration
- Network Design & Integration
- SCADA Design & Integration
- System Event Alerts
 - Custom Coding
 - Data Analytics
- Synchrophasors
- RTU Programming
- OPC Data Integration
- System Integration Support
- Trending Display Configurations
- Custom HMI Display Development

As an owner or operator within the power or renewable utility markets, it is important to have a reliable communication network in place. The system should be versatile, providing customized data, monitoring and control measures that can efficiently resolve outages and even predict failures.

Ulteig's team of System Integration professionals offers an extensive set of Supervisory Control and Data Acquisition (SCADA) and networking design services. These services can be part of an upfront collaborative effort on a greenfield site or added to an existing site. Our experts will work with you to deliver a customized solution that meets your specific needs.

About Ulteig

Ulteig delivers comprehensive design engineering, program management and technical and field services that strengthen infrastructure vital to everyday life. Ulteig's footprint spans the nation and provides its expertise in multiple Lifeline Sectors®, including power (both electric utilities and renewables), transportation and water to a wide range of public and private clients. To learn more about Ulteig and how we can enhance the quality and efficiency of your next project, call us at 888.858.3441 or visit ulteig.com.

How We Define System Integration

The ability to incorporate data and control sub-system equipment from multiple vendors and bring them together into a single unified system that meets the owner's operational and regulatory needs.

Already have SCADA but need updates or added functionality? Contact the experts at Ulteig to evaluate your existing system to determine if any of the following upgrades would help enhance your investment.

System
Integration
Technical
Leaders



JEFF HEINEMANN
Technical Director - Substation
701.280.8641
jeff.heinemann@ulteig.com



CASSIE POLMAN
Associate Director - Substation
651.415.6624
cassie.polman@ulteig.com



SETH MASLOWSKI
Substation Technical Manager
701.280.8551
seth.maslowski@ulteig.com

Ulteig Solutions

SCADA Design & Integration

With the continued growth of technology, there is no one size fits all. Each system, client and problem possess unique opportunities to optimize the use of new technology. Ulteig will work with you to design a SCADA system that meets your operational and regulatory needs. Our on-site services also ensure you are never without expert support during commissioning or during times of outages.

Network Design & Integration

Need to expand your substation network to new devices? Existing network causing you CIP or operational headaches? Putting in a new substation? Ulteig has your network needs covered. From basic network configuration to SSL VPNs for remote access, Ulteig is your one stop shop.

Historical Data Collection & Custom Reporting

Access to historical data allows you to review events leading up to faults and major system events, track equipment and site conditions over time and provide the necessary infrastructure to perform a load forecasting analysis and many other reports. Ulteig works with you to deliver a fully integrated information system containing centralized time-series and event-based data to optimize facility operations and reporting. Our team of experts is ready to provide clarity on the many data points your system records. We can build your system to review events leading up to faults and set up forecasting, accounting and neural networks (with use of additional software packages). Not sure how to spec the hardware, software and sizing needed to meet your integration requirements? Ulteig's experts can help.

System Event Alerts

An effective SCADA system should be configured to deploy text or email alerts whenever a significant event takes

place. Ulteig has expertise in building custom email or text alert systems. We can craft an innovative solution to suit the unique needs of your system, creating situational awareness and helping you rest easy at night.

Alarm Scheme Design & Integration

It is important to define what events should or should not warrant notification. By not setting an alarm, you could easily miss a critical opportunity to address a potentially serious problem. Conversely, you may get inundated or desensitized by nuisance alarms if you decide to monitor every aspect of your operation or assign the same priority value to each of these alerts. Ulteig works closely with you to determine what system conditions should trigger an alarm. We can work with your existing system to deliver a customized alarm scheme that fits the needs of your project.

OPC Data Integration

OPC is a protocol used for large amounts of data that surpass traditional protocol capabilities. Ulteig's OPC solutions allow you to access more of your system's data.

Implementing an OPC solution will provide you with more robust performance information. It is instrumental in the collection and analysis of historical process data and recommended for wind facilities, as there are often 100-200 data points per turbine. Ulteig will work with you to extract data only available via OPC from your existing system.

Custom Coding

There is always some report or calculation that is specific to your operation but is not in your SCADA vendor's base product. Ulteig can worry about those details, working with you to find a customized solution. From custom curtailment schemes, VAR control and load forecasting to energy accounting and reserve sharing, Ulteig is your one stop shop.

Trending Display Configurations

Ulteig's professionals have experience building trending displays based on a select subset of data points in a variety of platforms. Our expertise crosses many different vendors' HMI software, allowing us to create a solution that gives you the ability to visualize your most important real time data.

Synchrophasors

Synchrophasors are microsecond time-stamped phasor data that can be used to determine the events leading up to a fault. The Electric Reliability Council of Texas (ERCOT) is leading the charge in requiring submission of synchrophasor data feeds. We understand the ins and outs of Independent System Operators (ISOs) requirements and are ready to navigate this process with you at your site.

Ulteig can bring your system up to code with additional Intelligent Electronic Devices (IEDs) or develop new programming and install it on an existing substation computer using manufacturer specific software. Our professionals will install and configure this for you, setup an IRIG B connection or Network Time Protocol (NTP) to sync the time with your existing GPS clock, evaluate the data storage requirements and then show you how to read these files before sending them off to the ISO. We make this easy so all you have to do is email a file.

Additional Services

- RTU Programming
- Custom HMI Display Development
- System Integration Support
- Data Analytics