Wherever Energy Flows… and Goods are Produced

Our Automation Group provides expertise to electric & gas utilities, oil & gas pipelines, refineries, process chemical facilities, food & beverage manufacturers as well as manufacturing and industrial customers. Our automation experts have firsthand experience designing, operating, and maintaining the infrastructures that we automate. We support a wide array of current automation platforms while maintaining fluency in older “legacy” platforms. As one of the largest independent systems integrators in the United States we specify and implement best-in-class automation solutions based purely upon performance and “what’s best for the client.” Whether managing the automation and manufacturing optimization system for a pet food processing facility or designing the control panels for a compressor station, our clients can be assured that our team of more than 100+ professionals will provide dependable and reliable automation & engineering excellence wherever energy flows and goods are produced.

SCADA, PLC & HMI System Design
- Project conceptual design
- Scope of work development & project planning
- Project cost estimating & feasibility studies
- Partner status with multiple hardware & software platforms
- Wide array of supported hardware & software platforms

Information Technology & Networking Design
- Virtualized system implementations
- Data backup & recovery systems
- Extreme Wide Area Network (WAN) deployment
- System security design

MES Manufacturing Execution Systems
- Plant floor optimization
- ISA standards implementation
- Enterprise integration

Control & Instrumentation System Design
- Drawing package development
- Custom control panel design & fabrication
- Remote & wireless IO systems
- Control system upgrades and retrofits
System Assessment & Legacy Migration
- Turnkey legacy migration program development & execution
- Custom software tools for bulk migrations
- Custom hardware solutions for efficient migration
- Data-driven validation of point-to-point migration tasks
- Legacy systems support for phased legacy migration
- Site survey & evaluation
- As-found drawing documentation

System Installation & Commissioning
- End device to HMI IO point check out
- Site Acceptance Test (SAT)
- Factory Acceptance Test (FAT)
- Operator Qualified (OQ) engineer services - software simulation and testing

Quality Control System Design
- Real time & historical data monitoring
- Corporate & control network segregation and interface
- Data collection, reporting & visualization

EN Engineering’s Automation Services By the Numbers
- 17 Offices across the United States
- 1000+ Employees company-wide
- 100+ Programmers dedicated to Automation Services
- 24th Largest System Integrator globally out of 2,334 (as ranked in Control Engineering’s Automation Integrator Guide, 2015)
- 2010 Achieved Siemens Automation Solution Partner Status
- 2011 Achieved Rockwell Automation Solution Partner Status
- 2011 Achieved Invensys / Wonderware Certified Integrator System Platform Status
- 2011 Achieved GE Intelligent Platforms Solution Provider Status

What Our Clients Are Saying...
“EN is one of two go-to automation vendors we have and the best group we use for pipeline-related work.”

“There is no doubt EN will be a major source of automation expertise for us in the future.”

“It would be tough to outsource this work to anyone else.”

“We really like EN; there is a lot of professional trust between our project management team and their engineers... I have a lot of confidence in their management.”

“We don’t competitively bid work out; we just award it to EN.”

“EN has a lot of guys that have worked on the same assets we’re working on for 20-30 years.”

“EN’s advantage is that they can say they’ve been on the operations side of the business... It’s the difference between a college professor who is all theory and one that has applied that theory in the field.”
Covering a Wide Range of Applications

Over the years, our Automation Services team has worked with customers representing a diverse range of industries and applications. As varied as these applications are, all of our solutions are engineered and delivered with a focus on exceeding expectations and building long-term relationships with our customers. Here are just a few examples of the solutions that we have provided.

Gas, Oil & Liquids Pipelines
EN Engineering has years of extensive automation experience in the oil and gas industry. We specialize in engineering and automation for storage facilities, compressor stations, pumping stations, control centers, and all facets of pipelines and utilities. We understand the challenges our clients face and we have the resources, skills, and procedures necessary to successfully address them. EN Engineering’s Automation Services group possesses capabilities in all aspects of automation and information systems related to transmission, distribution, and storage of gas, oil, and liquids products.

Power Generation
Our automation engineers have provided solutions for a variety of power generation projects across the United States including gas turbine peaking plants, base-load fossil fuel plants, and hydroelectric generating facilities. We recognize the importance of the design of automated control systems to achieve maximum efficiency, safety, and reliability. Our control system solutions are designed based on ISA & NFPA best practices, FERC & NERC guidelines, equipment manufacturer recommendations, and proven industry experience. We have implemented automation projects for the power generation industry that have focused on: unit control, Supervisory Control (SCADA), emissions control, water control, combustion control, burner management and balance of plant automation solutions, as well as an array of other applications.
Food & Beverage

EN Engineering provides comprehensive and standards-based control and information integration solutions to the food and beverage industry. Having completed thousands of automation projects, our 100+ automation professionals have worked extensively across a number of automation platforms in a variety of processes and applications. We provide solutions tailored specifically to meet your needs of performance and flexibility. As one of the largest independent systems integrators in the United States, we specify and implement best-in-class automation solutions based purely upon performance and “what’s best for the client.” We can seamlessly deploy platform solutions that are already supported in-house or migrate to newer architecture based upon practical choice.

Process Chemical

Our Automation team has provided services for the upgrade and replacement of control and plant information systems for a number of chemical manufacturers. Our automation solutions have been utilized to control a wide range of processes throughout chemical plants. We have the experience necessary to effectively engineer control processes for batch and continuous operations and to coordinate plant-wide solutions for optimal performance. We achieve proven results utilizing all major platforms and combinations of technologies while meeting safety, quality, and environmental regulations in hazardous operating environments.

Platforms We Support

- Rockwell Automation
- Siemens Automation
- GE Intelligent Platforms
- Invensys / Wonderware
- Schneider Electric
- OMNI Flow Computers
- Daniel Measurement & Control
- Control Wave SCADA RTUs, PLCs, PACs, and Flow Computers
- Bristol LC, RTU, and Flow Computers
- Fisher RTUs & Flow Computers

This list represents some of the platforms we support and is not inclusive. As part of our corporate philosophy to provide the latest technology, we deploy new development resources on a regular basis. Please contact EN Engineering to verify most current support details if you do not see your desired platform.
Complimentary Services

With over 1,000 professionals company wide, the EN Engineering team includes experts in fields that compliment the resources of our Automation Services team. We also offer our clients expertise in electrical and pipeline engineering providing comprehensive solutions and seamless project execution.

Electrical Engineering

Our Electrical Engineering group supplements the capabilities of our Automation Services Group providing the full range of electrical and instrumentation design services. Our Electrical Engineering team can provide the expertise to design, commission, and analyze key electrical power systems and components necessary for the success of any automation project. We can provide complete engineering and design services for control panels, motor control centers, VFDs, and much more. Other services include substation, lighting and communication network design, as well as control panel fabrication.

Pipeline Engineering

Our Pipeline Engineering group works in tandem with our Automation team to ensure optimum integration of Automation Services for gas & oil pipeline infrastructure. Our team of engineers has designed, commissioned, and operated the assets that we automate. We have intimate knowledge of pipeline facilities including compressor stations, pumping stations, storage facilities, measurement & regulation, and control centers. Through the teamwork of our pipeline engineering and automation services groups we are able to provide the effective and reliable automation solutions that our customers require.
### Market Sector

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<th>Market Sector</th>
<th>Pipeline Engineering</th>
<th>Integrity Services</th>
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### Tailored Automation Solutions for Your Applications

#### Natural Gas
- Storage facilities
- Dehydration & gas treatment systems
- Gas compression facilities & controls
- Valve and manifold automation
- Fire & gas detection systems
- Emergency Shutdown (ESD) systems
- Measurement & regulation facilities
- Pressure and flow control automation
- Gas control centers

#### Oil & Liquids Pipelines
- Mainline pump & booster stations
- Storage facilities & terminals
- Sampling systems
- Early warning detection systems
- Batch tracking automation
- Valve and manifold automation
- Emergency Shutdown (ESD) systems
- Meter and proving systems
- Pressure and flow control automation
- Leak detection, over and short reporting systems

#### Process Chemical
- Batching system automation
- Advanced process control automation
- Boiler control systems
- Process automation
- Scheduling, order, and recipe/formula management
- Material handling

#### Power Generation
- Hydro electric power generation
- Gas turbine (Peaker) power generation
- Diesel generator monitoring and control
- Micro turbine monitoring and control
- NERC & FERC regulatory compliance

#### Food & Beverage
- Batching processing automation
- Process and production automation
- Utility monitoring and controls
- Material handling
- Dryer and cooling systems automation
- Raw, intermediates and finished goods storage automation
- Packaging automation and integration
- Quality and MES integration
- ERP connectivity
- Scheduling, order & recipe/formula management
- Tracking & tracing
- KPI dashboards
- HACCP management
EN Engineering is a dedicated group of engineering professionals with decades of experience providing highest value innovative engineering solutions in the natural gas, liquids, power and processing industries that meet our clients’ needs, while consistently maintaining the highest level of ethics and integrity.

Our success is achieved through the valued contributions of our talented and diverse employees.

EN Engineering’s mission is to build and sustain long-term mutually beneficial client relationships and to grow as a leading engineering firm providing excellence from start to finish.

www.enengineering.com