284 Constitution Avenue
Portsmouth, NH 03801

TVC Systems

Phone: (603) 431-5251
Fax: (603) 431-8909

Process Controls, Manufacturing Information, and Industrial Monitoring Systems
www.tvcsystems.com

Professional Resume

Adam L. Sargent

Chief Technology Officer

Introduction

Adam is our Chief Technology Officer. He is responsible for all production at TVC Systems, management of all projects, and technical direction for the company.

His experience includes all facets of control system project engineering; including technical proposals, hardware and software design, hardware configuration, programming, simulation, field checkout, commissioning, training, and warranty support.

Background

Prior to working at TVC Systems, Adam had exposure to programmable logic controllers, I/O systems, and programming languages through his university studies. He participated in the Cooperative Education program and worked in Research and Development for a major adhesive manufacturer.

Adam joined TVC Systems in 1988 as a project engineer. Three years later, he ran the Proposals Department, providing conceptual engineering, technical writing, and sales skills in his responsibility for all of TVC's proposals. In 1994, Adam became Manager of Engineering, and has had ultimate responsibility for most of TVC's projects ever since.

While Adam's primary responsibility is project and personnel management, his principal skill is the ability to solve technical problems. He is called in on our most demanding projects, and when our chief engineer is warranted.

Industry Expertise

- Utility Plants – Peaking Power, Cogeneration, Chilled Water
- Transportation – Tunnel Lighting/Ventilation, Movable Bridge Control, Traffic Control
- Aluminum Production
- Web Handling

Technical Expertise

- PLC Platforms: AB ControlLogix, SLC-5x, PLC-5x families; Modicon Quantum, Momentum, 984, Compact 984 families; GE 90/70, 90/30, Series 5; Siemens/TI 555, 545
- SCADA/HMI Platforms: GE Fanuc Proficy iFIX, FIX32; Wonderware InTouch; Rockwell Software RSView, PanelView; Intec Paragon; Iconics Genesis; CitectSCADA
- DCS Platforms: Yokogawa Centum CS3000; Honeywell Experion PKS
- Microsoft Server and Workstation operating systems
- Communication bridges and protocol converters
- Variable Speed Drives

Qualifications/Certifications

- BS in Chemical Engineering, University of Massachusetts at Lowell
- Graduate Level specialization in Computer Aided Process Control
- ISA Level II Certified Control Systems Technician
- ISPE Member

Recent Project Experience

- DCS-based BOP control system for 118MW peaking power facility
- Design and field engineering services for multiple cogeneration facilities
- Complete design document development and customer review for pharmaceutical research campus chiller plant
- Hardware design document development for landfill gas to energy project
- Engineering design consulting services for major university steam plant project
- 24/7 response service for critical systems
- Biotechnology laboratory reactor controller and software upgrades

284 Constitution Avenue
Portsmouth, NH 03801

TVC Systems

Phone: (603) 431-5251
Fax: (603) 431-8909

Process Controls, Manufacturing Information,
and Industrial Monitoring Systems
www.tvcsystems.com

Professional Resume

Adam L. Sargent

Chief Technology Officer

Attachment
Specific SCADA and Communication Experience

Introduction

As a Control Systems Integrator, Adam specializes in the specification, application, design, commissioning, and support of (S)upervisory (C)ontrol (A)nd (D)ata (A)cquisition systems, and (P)rogrammable (L)ogic (C)ontroller systems. SCADA systems are the primary means of human interaction with a control system, typically via color graphic displays of the process. The displays contain dynamically changing measurements and states of the process, and allow the operator to affect change via setpoint entries and state selections. Other features include alarm management, data collection, trending, networking, and reporting.

SCADA systems interface with PLCs and other intelligent control devices, which are wired to the process equipment that is being monitored and controlled. The SCADA interface is accomplished with a communication driver. There are thousands of these drivers on the market, many of which are specific to the SCADA manufacturer, and some that use standard protocols that are usable by many manufacturers. Also, toolkits are available to develop custom drivers for unique applications.

Experience

- Dozens of projects with the industry-leading SCADA manufacturers, covering the complete project life cycle from inception to customer acceptance. Examples are as follows:
  - GE Fanuc Automation iFIX SCADA, using 7 campus-wide networked PCs, communicating over Allen-Bradley Ethernet/IP and Data Highway Plus to 21 PLCs on 3 different hardware platforms; for the Global Research campus Central Utilities plants for one of the world's largest pharmaceutical companies.
  - Wonderware InTouch SCADA, using 3 networked PCs, communicating over Allen-Bradley Ethernet/IP to multiple PLCs; for furnace controls for a major aluminum manufacturer in Ghana, West Africa.
  - Rockwell Automation RSView SCADA, using 2 networked PCs, communicating over Allen-Bradley Ethernet/IP to multiple PLCs; for cogeneration and chilled water facilities for University of New Hampshire.
- Yokogawa Centum CS3000 DCS balance of plant control system for 118MW peaking power facility, including multiple communication protocols and ISO New England data feeds.
- Many projects with challenging communication requirements between diverse systems, as follows:
  - FieldServer hardware protocol bridge, to enable a Cleaver-Brooks boiler to communicate via CBLink, and convert it to Modbus for use by a SCADA/PLC system.
  - ProSoft hardware protocol bridge, to enable multiple ABB variable speed drives to communicate via Modbus, and convert it to Allen-Bradley data types for use by a SCADA/PLC system.
  - Cimetrics software driver, to enable Trane chillers and control equipment to communicate via BACNet, and populate an OPC server for use by a SCADA system.
  - Matrikon protocol toolkit, to configure a custom driver to interface Mettler/Toledo laboratory scales with a SCADA system.