



# THE SUPERIOR CONTROLLER

VOLUME 15 ISSUE 1

## Siemens Healthcare Diagnostic Expansion—A Total Success

Superior Controls has successfully completed the automation of the new Siemens Healthcare Diagnostic biotechnology facility in Walpole, Massachusetts. The \$109 million, two-year expansion that added 115,000 square feet to its manufacturing plant will enable the facility to produce over one billion diagnostic tests annually. Siemens Healthcare Diagnostic's develops medical testing products such as molecular imaging tests, laboratory kits, and medical devices used to diagnose, monitor, and manage diseases.

Siemens Healthcare Diagnostic, a unit of Siemens AG of Germany, will add 70 jobs to the existing 525 existing positions in Walpole. Siemens acquired the facility as part of its Bayer Healthcare Diagnostics purchase last year.

The Superior Controls Automation Team of eight engineers, led by Terri Russell, designed and implemented the validated GMP Process Control System (PCS). This included 11 stainless steel operator interfaces, 5 laptop interfaces with barcode readers, 2 workstations, 6 servers and 5 PLCs. Because of the variety and complexity of the massive number of recipes required, extensive S88 Batching procedures were used.

The PCS automation project also included control of 3 suites, filling lines, CIP, Buffer Prep, RO and DI Water Systems, Ethanol Distribution, and Waste Treatment areas.

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**"I would certainly look forward to working with Superior Controls again."  
—Chris Russell**



The *Superior Controller* is published by Superior Controls, Inc. of Seabrook, NH—the leading controls system integrator specializing in the design and implementation of industrial automation and information systems.

The purpose of this newsletter is to present project examples to our customers. Your comments are welcome. Write or Fax:



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Trusted Automation Excellence

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## Cost Reductions = Outsourced Automation

In response to acute customer cost pressures, Superior Controls is expanding its 24/7 Emergency Support and Maintenance programs for customer automation and IT systems. Many companies are coping with hiring freezes and find themselves struggling to maintain their plant productivity and reliability with a reduced engineering staff. Their reduced staff may not be able to provide immediate response if a PLC, server, or critical network fails during the off hours. Additionally, regular maintenance tasks are being delayed or overlooked. Many customers are turning to Superior Controls for help.

"Automation Doctor" is our aptly named, emergency support program. In effect now for five years and becoming increasingly popular, this program provides around the clock engineering coverage. These contracts are structured so that engineers familiar with the customer's facility and automation strategy can be contacted within minutes—night and day. If our on-call engineers are unable to correct the problem over the phone, they can be at the customer site within four hours.

"Superior Reliability" is our aptly named, maintenance support program. After a brief on-site

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# Siemens Healthcare Diagnostic Expansion—A Total Success *(Continued from Page 1)*

In addition, Superior Controls created the GMP Validation documentation for the PCS system and each production area.

At the completion of the two-year project, Chris Russell, Bayer Technical Services, Senior Project Engineer, stated, “The Superior Controls team worked hand-in-hand with our project team throughout the course of our systems integration design, installation, commissioning, and validation. Their efforts during our complex, fast-paced, and highly successful project were consistently of a very high quality and reliability; I would certainly look forward to working with Superior Controls again.”



**One of 18 Operator Interfaces**

## Superior Controls – A Brief History

March 1993	Mark LaRoche and Rick Pierro incorporate Superior Controls to design and implement quality Automation and IT systems. Company based in Kingston, NH.
1994	The company outgrows its space and relocates to Plaistow, NH.
1995	Polaroid becomes Superior Controls’ largest customer, a relationship that continues for the next 4 years.
1996	Rockwell adds Superior Controls as an approved “Certified Systems Integrator.” Superior focuses on BioPharma and Food and Beverage manufacturers. Company grows to 20 employees.
1997	Superior participates in the Control System Integrators Association (CSIA) pilot program for baseline auditing and certification of systems integrators.
1999	The company implements the first of several Delta V projects at Pfizer and Shipley Chemical (later Dow).
2000	Superior successfully completes its first CSIA audit and certification. Superior Controls supports funding and development of the UMass Lowell “Superior Controls - Chemical Engineering Computer Lab.”
2002	Separate Validation and Documentation Department formed to meet growing customer needs in the BioPharma sector. Currently, 7 full time engineers.
2003	Superior celebrates its 10-year anniversary: 1,086 projects completed with systems implemented in 21 states and 9 countries. GE designates Superior Controls as a “Premier Partner” for MES and PLC applications. The company reaches 30 employees. Superior successfully completes its second CSIA audit and re-certification.
2004	Rockwell adds Superior as approved “Software Partner” Integrator. Superior Controls helps develop and deliver the first full-credit FDA Validation course at the University of Massachusetts.
2005	Ocean Spray honors Superior Controls with the coveted worldwide “Vendor of the Year” award for most significant contribution to their manufacturing strategy. Superior begins providing 24/7 emergency support to New England manufacturers.
2006	Superior successfully completes its third CSIA audit and re-certification, the first company in the nation to achieve certification three times.
2007	New 24,000 sq. ft. headquarters in Seabrook, NH purchased. The renovated three story facility can accommodate 88 employees. Superior Controls moves into new Seabrook, NH headquarters with 42 employees. Ocean Spray honors Superior Controls for the second time with their “Vendor of the Year” award for automation projects implemented throughout North America. Rick Pierro is elected president of the 1300 member Boston Chapter of the International Society of Pharmaceutical Engineers (ISPE). Iconics adds Superior to “System Integrator Partner Program.”
2008	15-year anniversary celebrated with a dinner cruise in Boston Harbor. Company reaches 50 employees and contractors with \$16M in revenue. 1,647 projects implemented in 28 states and 10 countries. Siemens Automation adds Superior Controls as “Authorized Partner for PCS 7.”
2009	The company funds “The Superior Controls - Chemical Engineering Process Lab” at UMass Lowell.

## THE PEOPLE WHO ARE SUPERIOR CONTROLS

# Four Professionals Join Superior Controls

A warm welcome to our newest employees, who have joined Superior Controls, Inc. since our last newsletter.



**Richard Pineo**, a versatile software engineer with 16 years of experience, has an MS in computer science from the University of Massachusetts. Richard has worked as an engineer for Altran on various nuclear power control and validation projects. He has extensive experience

in programming languages from his work as a software engineer and application developer at BMC Software Company. As a Control Systems Engineer at Serra, he created generic recipe interfaces in Visual Basic, and commissioned Wonderware and Siemens systems for a variety of projects from wastewater to semiconductor tools. His current projects at Superior Controls include a clean room, door interlock system for a biotechnology client, GAMP documentation for a Czech Republic based biotech customer, and a Biotech WFI system. Richard and his wife live in Seabrook and just welcomed a new daughter, Maya, to their family.

**Nancy Graziano** has an eclectic background with a BS in Chemical Engineering from Rensselaer Polytechnic Institute and a Masters in Secondary Education from the University of New Hampshire. She worked in the plastics industry at Textron as a project engineer and at GE Plastics as a technical marketing engineer; she also taught high school Chemistry and Physics at Phillips Exeter Academy. Applying her engineering management skills, she co-founded the New England Immunodeficiency Network. At Superior Controls, Nancy is providing validation for a large Rockwell PLC based building management system in Devens, MA. She lives in Atkinson with her husband and 3 children where she enjoys outdoor activities such as hiking and cross-country skiing.



**Stephanie Simmons**, an expert in product/process development and manufacturing, earned a BS with distinction from the University of Massachusetts Amherst and a Ph.D. in Polymer Science and Technology/Chemical Engineering from Massachusetts Institute of Technology.

At Raychem Corporation, Stephanie worked as a staff scientist/engineer to develop new silicone-based material formulations for high voltage insulation. She managed a team of engineers at Candescant Technologies Corporation for manufacturing and process development for Thin CRT™ Field Emission Displays. Her current Superior Controls project entails extensive GAMP documentation (URS, FRS, and operational protocols) for an overseas enzyme production process. Stephanie lives in Hampton with her husband, two children, and golden retriever. Her interests include martial arts, swimming, and astronomy.

**Jeff Luebke** has an extensive 15-year background in the design, installation, troubleshooting and validation of control systems and equipment, and experience in structured language programming for automation and data collection. At Keene State College he majored in Industrial Technology/Mechanical Design with a minor in Computer Science. He is a master electrician with experience in industrial and commercial contracting, mechanical and electrical engineering and alternate energy. Jeff worked as a Process Engineer at Smiths Medical where he installed SCADA systems and upgraded sterilization controls and equipment, as well as wrote and implemented IQ/OQ/PQ for these projects. His current Superior Controls project entails extensive GAMP documentation (URS, FRS, and operational protocols) for an overseas enzyme production process. Jeff has a house in Marlborough, but commutes during the week from his apartment in Portsmouth. His hobby is cooking.



## Cost Reductions = Outsourced Automation *(Continued from Page 1)*

evaluation of the automation and IT equipment and strategy, our team of engineers schedule periodic maintenance visits, usually quarterly, to check the status of the automation hardware and software, fix problems, and recommend improvements.

Plant Managers, Production Managers, and Maintenance Managers are facing tremendous pressures to sustain performance with reduced staff and resources. They are also being expected to improve the reliability and quality of their automa-

tion and IT systems with reduced budgets. By partnering with Superior Controls, numerous managers are able to achieve their company's performance and quality goals. For many customers, Superior Controls has become an extension of their own engineering team, by providing them with the much needed additional on-site support for startups, validation, and projects.

Recently, one Sunday at 2:00 AM, a critical network between a PLC and server stopped communicating at a Biotech facility

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## Cost Reductions = Outsourced Automation *(Continued from Page 3)*

in Cambridge, MA. In critical need of support, the supervisor phoned the on-call Superior Controls engineer. Within an hour, our engineer was at the customer site, and within another hour, he found the root cause of the problem and corrected it. As a result, the bioreactor's production (at \$5M per batch) was uninterrupted.

"Automation Doctor" and "Superior Reliability" typically include a yearly fee for on-call services and after-hour engineering rates. The first step in setting up a service contract is for Superior Controls to identify and evaluate each automation

system that will require support. The contract cost is a function of the number of systems, their complexity, and the on-call schedule required. After the contract begins, multiple engineers visit the customer site to become familiar with the system and documentation. The customer is provided multiple contact numbers for emergencies.

If you're looking for emergency and/or maintenance support, be sure to call Damon Robbins or Rick Pierro at Superior Controls, (603) 468-3000.

## Road Race Results a Shock

For the 15th consecutive year, Superior Controls entered a team of fleet-footed runners in the annual CIGNA/Elliott 5K Road Race in Manchester, NH. This year the results were shocking.

It wasn't a surprise that yet again the Superior Controls team bested our friendly rivals, Horizons Distributors. As customary, Rick Pierro, president of Superior Controls, offered \$300 to any employee that could beat him—as he's done for the past five years. The biggest surprise (and a real shock for Rick Pierro) was that Heidi French, who had secretly begun running many months earlier, handily beat the team and Rick by 22 seconds to claim her \$300 prize.

Heidi, our specialist CAD technician for 16 years, said after the race, "I knew I had a good chance to beat Rick if I could stay under an 8-minute mile. The weather was perfect for this and all my training really paid off. It was great to see my husband and daughters screaming and cheering me on at the end of the race."

Asked what she planned to do with the \$300 winnings, she said, "Take my family out for a celebration dinner."



**Before the Race** Heidi French, #669, far right, before she beat Rick Pierro, #663, center, in the 5K race.