



# SPRING AUTOMATION

**Automation That Serves You**

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**Controls, Software, and Service**

# Spring Automation

Spring Automation provides controls, software, and installation services to end-users, integrators, and OEMs. Our approach to serving you begins with listening and learning about you and your business. We'll learn and, in-turn, collaborate with you creatively. No holding back, and no assumptions. That's our commitment to you.

Our team of controls professionals want to be your partner of choice. We have an experienced team of designers, programmers, and leaders that understand the industries we serve. We love what we do and love making happy customers.



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## About Us:

The team at Spring is bought in on our purpose: Show how business can improve lives. Not just our lives, but yours. The families of our team members. We want to become better spouses, partners, friends, and members of our communities. Fulfilled engineers make for superb professionals that can't sleep until they've solved your biggest challenges. Who else would you want working on your projects?



That's who we are. That thought drives who we hire, how we work, our drive to innovate, and our long-term perspective. We hope you see the difference, and when you choose to work with Spring, find it a little refreshing.

Spring Automation is located in the Cool Springs area of Franklin just south of Nashville, TN, and is part of the Diakonia family. From the beginning, we have attracted a team of experienced and enthusiastic controls professionals that love coming to work.

We believe how we treat one another makes a difference when we have the privilege of working with you. When you interact with a member of the Spring family, it should be the easiest part of your day. The industrial world in the 21st century is complex enough. Spring is committed to making it a little less complex for you.

## Markets

Spring Automation delivers high-quality turnkey controls and software solutions to integrators, OEMs, and end-users.

Spring personnel are skilled in working in the following industries

- Plant Utility Systems
- Material Handling
- Food and Beverage
- Meat Processing
- Chemicals
- Metals
- Foundries
- Steel Mills
- Tire Manufacturing
- Pigments
- Safety Systems
- Water and Wastewater
- Error-Proofing Systems
- Automated Pharmacy
- Machine Control
- Process Control



## Controls Integration

Successful Integration is more than just a merging of systems so that your facility runs. It is a total cohesion of your process that facilitates operations at their most productive and efficient levels. You expect low downtime, a safe work environment, and a system that operates to every detail of your standards and expectations.

How does Spring Automation deliver this? Our talented and experienced team of engineers and programmers understand the demands upon your business and work hard to produce hardware and software solutions to improve your bottom-line.

## Conceptual Development

Whether it's a material handling facility, food processing plant, or other facility, we work with your mechanical and process engineers in development of basic design documentation required to implement a project that meets your requirements. We are skilled in the development of functional design documents, facility layouts, piping and instrumentation diagrams and other documents that set the basis for an effective project.



## PLC Programming

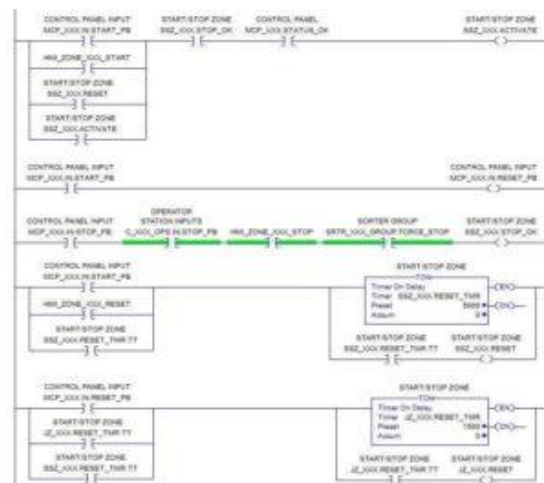
Whether a system is new or existing, quality PLC programming is a necessity for consistent and smooth operations. This requires creative thinking and an attention to detail. Your control system should be easy to maintain, easy to troubleshoot, and programmed for expansion in the future.

### Our Strengths:

- Seamless Hardware and Software Integration
- Tailored Code to Your Specifications
- Short Commissioning Schedules
- Communication and Messaging with 3rd Party Devices

### Our Experience:

- Allen-Bradley
  - ControlLogix
  - CompactLogix
  - SLC 5 Conversions and Upgrades
- Siemens
  - TI Simatic 505
- ASi Distributed IO Systems



### Our Implementations:

- High speed package sortation
- Scanner interfacing and control
- Labelling machine interfacing and control
- Weigh Scale integration
- Parts tracking
- Legacy control system conversions
- Torque tool data
- Upper-level software interfacing from PLC to WMS
- RFID tag integration for batching systems
- RFID tracking for conveyance systems

## HMI Development

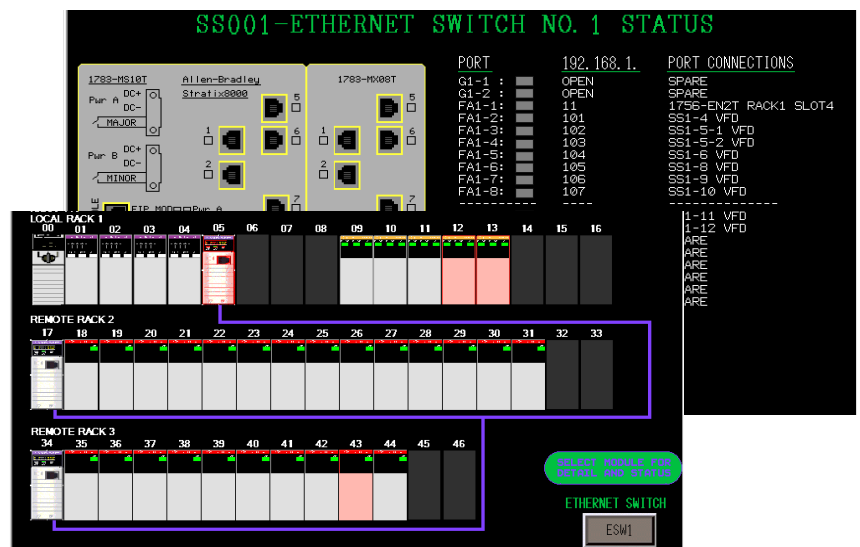
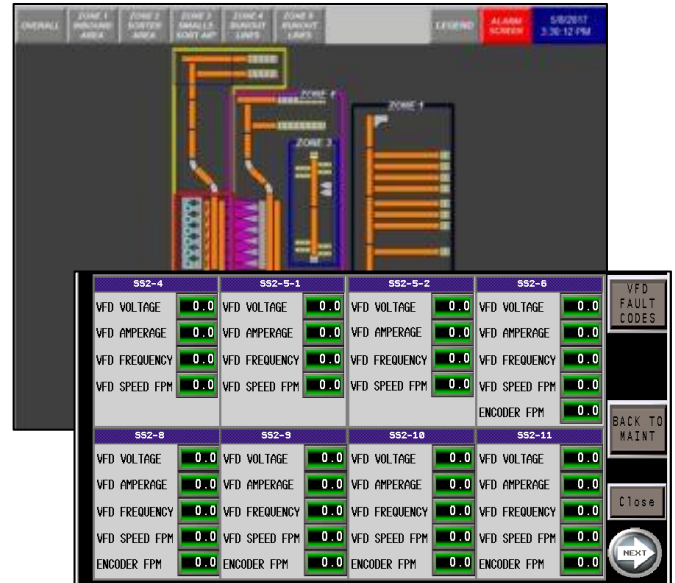
Whether monitoring normal operations or identifying a problem as soon as it arises, an intuitive HMI application is needed to maintain your process. Our team focuses on functional as well as aesthetically pleasing screens that add value to your system and make your job easier.

### Our Strengths:

- Operator and Maintenance Friendly Interfaces
- Multi-Platform Experience (Allen-Bradley, Wonderware, Proface, etc.)
- Alarming & Safety
- Data Tracking and Logging
- Training

### Our Experience:

- Allen-Bradley FactoryTalk
- Wonderware
- Inductive Automation's Ignition
- Indusoft
- Pro-Face



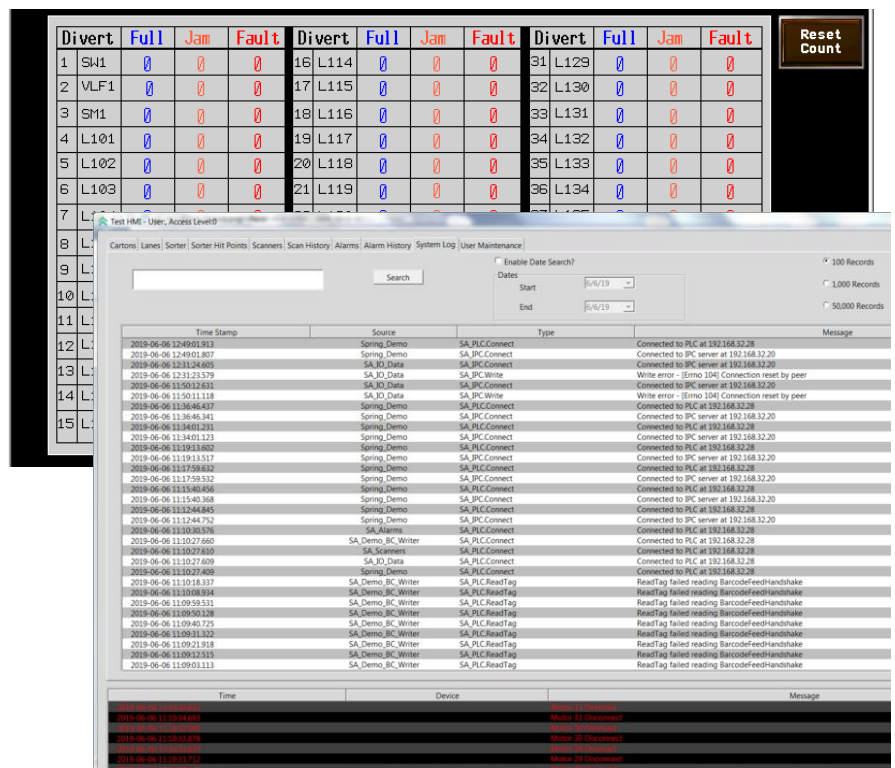


## Software, Statistics, and Data Analytics

Spring provides a variation of data analysis and reporting options that can be passed from low level controls to upper level software. From tracking packages through a warehouse to detecting bottlenecks at operator stations, our team has provided a wide range of KPI and data collection solutions. We understand the importance of providing insights into your system and its performance.

### Data Collection and Reports:

- Production reporting
- OEE (Overall Equipment Effectiveness)
- Operator efficiency reports
- Sortation accuracy
- Equipment tracking for preemptive maintenance
- System volume metrics/rates
- Scanner statistics
- Weigh scale reporting
- Pallet/carton counts
- Error counts
- RFID location tracking metrics



The screenshot displays a data collection and reporting interface. At the top, there is a table with columns for 'Divert', 'Full', 'Jam', and 'Fault' for various lanes (1-15). Below this, a detailed log window is open, showing a list of system events with columns for 'Time Stamp', 'Source', 'Type', and 'Message'. The log includes entries for 'SA\_PLC Connect', 'SA\_PLC Disconnect', 'SA\_IO Data', 'SA\_PLC Write', 'SA\_PLC ReadTag', and 'SA\_Demo\_Bc\_Writer'. A 'Reset Count' button is visible in the top right corner of the interface.



## Panel Fabrication

We are proud to hold ourselves to the highest standards regarding quality panel design and fabrication. Our standard designs are based on NEC requirements, and our panels are both UL508A compliant and NEMA & IP rated. We are also proud to design panels per the unique customer specifications that may be required.



Spring Automation focuses on maintaining solid relationships with our vendors to ensure that our high standards are met. Our design teams make regular visits to the vendor shops for inspections while the panels are being constructed. Wiring is checked to ensure neat organization by use of cable ties, “sticky back” and wire ways. It is also our standard to clearly label wires with heat shrink markers at both ends of all terminations for convenience and longevity. Various vendor component options (as required by our customers) can be used for means of control and integration of your uniquely designed system.

Finally, all panels go through a quality check, Factory Acceptance Test, and functional test before the UL certification is given and the Panel is shipped to site.

## Electrical Installation

At Spring Automation, we strive to be innovative in our electrical installation process. Our focus is to create a streamlined installation approach to help ensure the success of our customer's goals. By working alongside a nation-wide network of skilled and certified electrical subcontractors, we can meet these goals across the country. Through adhering to both industry and customer standards, we make it our mission to bring you high-quality electrical installations that match the effectiveness of our control systems.

Spring Automation offers a variety of industrial electrical services:

- Grass Roots Projects, Retrofits, and Remodels
- AC and DC Control/Drive Systems
- Industrial Control Panel Installation
- Transformer and Power Distribution Installation
- Motor and VFD Installation
- PLC, HMI Screen, and Relay Logic Additions
- Service Calls

Myriad of control field devices:

- Instrumentation - pressure, temperature, level, flow, weight, control valves, and analyzers.
- Emergency Stops
- Electrical Disconnects
- Control Stations

