

## **ASPECT AUTOMATION Position Description**

**Position Title:** Controls Software Engineer  
**Department:** Controls Engineering  
**Reports To:** Controls Engineering Supervisor

### **Primary Objective of Position**

Design and implement custom Human-Machine Interfaces and Supervisory Control & Data Acquisition systems from concept through delivery.

### **Major Areas of Accountability**

#### **1. Technical Responsibilities**

- Design cost-effective HMI and SCADA systems for custom machinery, including hardware selection, software development, and system commissioning.
- Design and configure industrial networks for work cells requiring machine control, data collection, and MES/ERP integration.
- Produce technical documentation, including design specifications, network diagrams, and maintenance manuals.
- Participate in control system debug and provide on-site installation and training as required by project specifications

#### **2. Personal Responsibilities**

- Work proactively, with minimum supervision, to complete projects on time and within budget.
- Motivate self and others in a positive and professional manner.
- Delegate appropriately to engineering support and shop personnel.
- Communicate effectively with team members and management regarding project status, resource requirements, and potential obstacles to success
- Lead project teams as required

#### **3. Department Support & Development**

- Keep current with new technology, engineering methods, and standards within the automation industry.

- Actively participate in ongoing process improvement by contributing to engineering standards, procedural audits, and project design reviews.
- Facilitate the professional development of self and colleagues by constructively sharing lessons learned through project successes and failures.

### **Essential Qualifications**

1. A bachelor's degree in electrical engineering and a minimum of three years of relevant experience, or a related two-year post high school diploma/certificate and a minimum of seven years of relevant experience, or an equivalent combination of education and relevant experience.
2. Proficiency in the design of HMI and SCADA systems for industrial machinery, including hardware selection, software selection, programming, and installation.
3. Knowledge of at least one common Industrial HMI development platform, such as Wonderware Intouch & Archestra, or Rockwell Software FactoryTalk View ME & SE.
4. Experience in preparing engineering documentation including Network Diagrams, and Operator and Maintenance Manuals.
5. Thorough working knowledge of Personal Computers in industrial applications, including ability to install and configure Microsoft Windows desktop and server operating systems.
6. Ability to troubleshoot complex electrical and logical systems in an efficient and accurate manner.
7. Demonstrated effective interpersonal and written communication skills.

### **Desired Qualifications**

1. Familiarity with computer Virtualization technologies, such as VMWare Workstation and EXSi.
2. Working knowledge of a High-Level programming language, such as C++, C#, or Visual Basic.
3. Experience implementing relational databases using Microsoft SQL Server or similar.
4. Familiarity with Thin Client technology.
5. Thorough understanding of computer networking, TCP/IP fundamentals, and industrial fieldbus architectures such as Ethernet I/P and EtherCAT..
6. Exposure to GAMP principles and procedures.

## **ADA Requirements**

- Typically sits, grasps items and performs keyboarding for frequent operation of a computer
- Stand, walk, bend, reach or otherwise move about regularly
- Lift, move, or otherwise transfer items up to 40 lbs. occasionally, >20 lbs. frequently
- Occasional exposure to typical machine shop physical hazards
- Travel by air or car frequently