

ASPECT AUTOMATION Position Description

Position Title: Control Software Engineer
Department: Control Engineering
Reports To: Control Engineering Supervisor
Date: June 8, 2018

Primary Objectives 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:

- 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.
- Proficiency in the design of HMI and SCADA systems for industrial machinery, including hardware selection, software selection, programming, and installation.
- Knowledge of at least one common Industrial HMI development platform, such as WonderWare InTouch & Archestra, or Rockwell Software FactoryTalk View ME & SE.
- Experience in preparing engineering documentation including Network Diagrams, and Operator and Maintenance Manuals.
- Thorough working knowledge of Personal Computers in industrial applications, including ability to install and configure Microsoft Windows desktop and server operating systems.
- Ability to troubleshoot complex electrical and logical systems in an efficient and accurate manner.
- Demonstrated effective interpersonal and written communication skills.

Desired Qualifications:

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