

AUTOMATED SYSTEMS SPECIALIST

Recruitment #1603-0183DC-001

List Type Original

Requesting Department DPW-WATER-LINNWOOD

Open Date 4/7/2016

Filing Deadline 5/13/2016 11:59:00 PM

HR Analyst Jeff Harvey

Introduction

Located on the western shore of Lake Michigan, Milwaukee is an urban hub bursting with energy. Milwaukee provides a casual sophistication – big city appeal without the big city hassles. We are accessible and affordable, and our residents are welcoming. Milwaukee has evolved through the years, bringing together its unsurpassed old world charm with a breathtaking Art Museum, top flight arts and cultural attractions, professional sports, lakefront festivals, recreational opportunities, and great restaurants.

Purpose

Research, design, update, program, maintain, troubleshoot, repair, and, modify all control systems in the Water Works from operator interface computers through any existing or future communications system, and control system to field devices and instruments. Maintain records of the automation system including programs, alarms, input output lists, and instrument ranges for all systems in the Water Works.

Essential Functions

- Design and layout new systems or replacements for obsoleted PLC's using the latest control platform including new or re-written programs to be integrated with the supervisory system by creating necessary HMI tags and alarms as required by the application.
- Coordinate with Electricians, Instrument Technicians, Contractors and Operations personnel during implementation of the new control system.
- Modify and expand programming and graphical user interface as needed when new equipment or instrumentation such as VFD's, Analog, or Digital instrumentation whether connected via current loop, Ethernet IP, Modbus, or ASCII is added to the system.
- Assist in physical layout, connection, routing and testing of new systems including communications switch setup, graphics creation, adding trends, reports, and documenting the system.
- Provide technical support, training and troubleshooting for all software, hardware, computer, networks, electrical, instrument, for Operations, Electrical, Instrumentation and Engineering Staff. Respond to emails and calls related to automated systems.
- Monitoring and maintenance of automation systems including monitoring and correction of processor faults, errors, warnings, loss of communication and field device warnings.
- Conduct Firmware upgrades of automation controllers as required for compatibility with new HMI platforms to be integrated and inclusive of security updates.

- Monitoring and maintenance of HMI Servers used for SCADA. Ensure that best industry practices are used to manage, monitor, and maintain the SCADA servers.
- Conduct software patches and updates for Rockwell's FactoryTalk HMI platform and control network, which is often an all-or-nothing roll-out affecting all SCADA servers and desktops.
- Conduct and coordinate complex pre-planning to ensure system operations and any downtime effects and recovery processes, if needed.
- Create and maintain SCADA documentation including Guides for Operators, and process control procedures. Create and maintain spreadsheets for SCADA management and tracking. Create SCADA Technical Notes and documents.
- Responsible for data collection and retrieval including creation of active reports and graphs that can be used to interpret and plan water production, distribution, and quality.
- Maintain Equipment records with the TMA system. Add and maintain programming comments in plain English, so as to allow other programmers to understand the logic.

Reasonable accommodations requested by qualified individuals with disabilities will be made in accordance with the Americans with Disabilities Act (ADA) of 1990, as amended by the Americans with Disabilities Act Amendments Act (ADAAA) of 2008.

Minimum Requirements

1. Bachelor's degree in control programming, computer programming, process engineering, or closely related field from an accredited college or university –AND- one year of experience in PLC/PAC programming. - OR -
2. An Associate's Degree in control programming, computer programming or closely related field from an accredited college or university –AND- three years of experience in PLC/PAC programming.

IMPORTANT NOTE: *To receive credit for high school or college coursework, transcripts are required and must be received by the application period closing date. Transcripts should be attached to your online application. Applications without transcripts attached will be considered incomplete and will be rejected. Your transcript must be legible (readable) and include the following information: the school name, your name, the degree completed (if applicable) and the date the degree was completed.*

Note: Equivalent combinations of education and experience may also be considered.

Knowledges, Skills, Abilities & Other Characteristics

- Knowledge of serial and Ethernet communications protocols including Modbus IP TCP and CIP.
- Knowledge of instrumentation communication including HART current loops and other analog data transfer methodologies.
- Knowledge of Microsoft Windows to the system level including the ability to work with services and registry.
- Knowledge of IPV4 networking including subdomains and net masks.
- Interpersonal skills, including the ability to build and maintain working relationships with multi-cultural staff, vendors, contractors and management.
- Written communication skills, including the ability to communicate technical information in writing in an understandable and clear manner.
- Must be proficient in Microsoft Office Suite Programs including: MS Excel, Outlook and MS Word.

- Ability to program Rockwell automation PLC's (Programmable Logic Controllers) and PAC's (Programmable Automation Controllers) using ladder logic and function block programming.
- Ability to conduct basic computer programming including loops, conditionals, and subroutines.
- Ability to read electrical, piping, and construction prints and diagrams.
- A good foundation in general systems and electrical/electronic troubleshooting including the ability to use basic electrical/electronic test equipment.
- Ability to understand and follow detailed instructions.
- Ability to read and understand technical manuals when setting up and installing new equipment and instruments.
- Ability to maintain a calm demeanor and stay in control in pressure situations.
- Ability to pay attention to detail while understanding the overall picture.
- Ability to keep up with the highly dynamic and constantly changing software and hardware associated with the industrial control systems.

Current Salary

SALARY The starting salary (PG 2GN) for City of Milwaukee residents is \$56,767 and for non-residents is \$55,374. Appointment up to \$63,825 is possible based on qualifications and experience.

Selection Process

The selection process will be job related and will consist of one or more of the following: education and experience evaluation; written, oral, or performance tests, or other assessment methods. The Department of Employee Relations reserves the right to call only the most qualified candidates to oral and performance examinations. Oral examinations may include written exercises.

- *NOTE: The City's residency requirement set forth in City Charter 5-02 is under litigation. Even though the City is legally able to enforce the current residency requirements based on a recent Wisconsin Court of Appeals decision, the City has agreed to continue to suspend enforcement of the ordinance until the Wisconsin Supreme Court issues a final decision. If the Wisconsin Supreme Court affirms the Court of Appeals decision, the City intends to fully enforce the residency requirement for all employees. Consequently, employees who disregard the requirements of the ordinance do so at their own risk. Applicants for City of Milwaukee positions should understand the City's commitment to its residency requirement. During this period of uncertainty it is important to take that into account when submitting an application and more importantly when deciding to accept an employment offer. Please contact (414) 286-3751 if you have questions regarding your individual circumstances as part of the application and/or selection process.*

INITIAL FILING DATE – The examination will be held as soon as practical after **April 29, 2016**. Receipt of applications may be discontinued at any time after this date without prior notice. However, recruitment may continue until the needs of the City have been met. Qualified applicants will be notified of the date, time, and place of the examination. Unless otherwise required by law, the City of Milwaukee will not provide alternative test administration. The applicant is responsible for attending all phases of the job selection process at the time and place designated by the City of Milwaukee.