City of Mesa – Water Resources

UTILITIES SYSTEMS ANALYST I

JOB DESCRIPTION

Classification Responsibilities: A Utilities Systems Analyst I provides technical support for the Utilities Department Supervisory Control and Data Acquisition (SCADA) system. The incumbent's duties include programming, modifying, and testing graphic interfaces for use by the Water Treatment Plant Operators as well as creating and running reports. Other duties include: utilizing advanced graphics and programming concepts, tools, and technologies such as Visual Basic and 3D graphics animation to develop Operator control interfaces; utilizing Programmable Logic Controller (PLC) programming languages such as Ladder, Function Block, Structured Text, and Sequential Function Chart logic to develop control programs; installing, configuring, and maintaining workstations, laptops, and other peripherals both stand alone and connected to the Utilities network; assisting in evaluating hardware, software, and peripherals for new and existing facilities; testing and modifying new and existing applications used for operational interfacing with PLC's; verifying Process and Instrumentation (P&ID) and electrical drawings for accuracy, and verifying that drawings agree with control descriptions and plant specifications; creating SCADA Human Machine Interface (HMI) graphics and associated database; developing and implementing SCADA alarm functions; troubleshooting the system and correcting problems; developing daily, weekly, monthly, and yearly reports as required by management and plant personnel; and developing SCADA documentation and performing related duties as required.

Distinguishing Features: Incumbents are required to carry out assignments without detailed instruction or guidance. The Utilities Systems Analyst I differs from the Utilities Systems Analyst II because of the development work that is performed by the latter in the creation of programs for new plants/sites and PLC programming. This class is FLSA exempt-computer professional.

QUALIFICATIONS

Employee Values: All employees of the City of Mesa are expected to uphold and exhibit the City's shared employee values of Knowledge, Respect, and Integrity.

Minimum Qualifications Required. Any combination of training, education, and experience equivalent to graduation from an accredited college or university with an Associate's Degree in Computer Science, Information Technology, Engineering, or related field. Good (1 - 3 years) work experience in information systems including work with SCADA Systems or Utility Network experience.

Special Requirements. Must possess a valid Class D Arizona Driver's License by hire or promotion date.

Substance Abuse Testing. Due to the safety and/or security sensitive nature of this classification, individuals shall be subject to pre-employment or pre-placement alcohol, drug and/or controlled substance testing as outlined in City policy and procedures.

Preferred/Desirable Qualifications. Experience in the installation, maintenance, calibration, and repair of electronic (solid-state) controls, instrumentation, and related equipment is highly desirable.

ESSENTIAL FUNCTIONS

One position may not include all of the essential functions, knowledge and abilities listed, nor do the listed examples include all the knowledge and abilities which may be found in positions of this classification.

Communication: Communicates with other City employees, vendors, management, contractors, and other government agencies in order to identify problems or required changes, communicate recommendations and specifications, and coordinate the implementation of solutions. Communicates with team members in order to maintain continuity and quality of customer service. Instructs and/or trains others regarding computer systems design, documentation, programming, and/or testing and debugging techniques. Prepares written documents such as memos, reports, etc.; and technical documentation with clearly organized thoughts, using proper sentence structure, punctuation, and grammar. Works courteously with customers and employees in situations that require tact and diplomacy in order to identify and resolve technical issues.

Manual/Physical: Distinguishes colors to identify color-coded cable, wiring, and electronic components. Enters data into a personal computer (PC) to create documentation, test, and debug computer applications or system software and/or write computer programs. Moves hardware weighing up to 75 pounds using a cart or other aid when necessary to provide customers with products. Operates a motor vehicle requiring a standard Class D Arizona Driver's License to provide on-site technical support at customer locations. Operates a variety of standard office equipment such as a PC, printer, telephone, and fax. Meets scheduling and attendance requirements.

Mental: Comprehends and makes inferences from written material including technical documentation related to system hardware and/or software. Conducts research and/or analyzes system-related data to improve system performance. Organizes and directs the activities of staff members engaged in the installation and maintenance of system hardware and/or software. Resolves procedural, operational, and other work-related problems by analyzing problems and recommending resolutions or correcting problems. Learns mainframe and/or PC hardware and/or software through on-the-job training, in a classroom setting, or through other formats such as self-study or computer-based training.

Knowledge and Abilities:

Knowledge of:

SCADA systems software and hardware (examples: Cisco, Enterasys, 3COM, Intellution iFIX, routers, switches, etc.);
PLC's;
practices and procedures of water and wastewater treatment plants;
analysis and research techniques;
telemetry systems, data communications, data acquisition and process control;
concepts of operating systems, networking, and communication systems;
computer and networking troubleshooting and maintenance procedures;
high-level computer language used in making system modifications;
network administration principles and practices;

database management systems and applications;
database administration and optimization;
project management, project manning concepts; and
safeguards and security procedures for information systems.

Ability to:

install, operate, and maintain complex data communications and networking equipment;
install and operate software required for system operations;
analyze, design and implement computer control logic and strategies;
troubleshoot and resolve routine software, hardware, and network problems;
analyze and repair software, hardware and system equipment malfunctions;
work with vendors and design engineers to produce a working system;
read control schematics;
communicate technical issues clearly both verbally and in writing;
train non-technical users;
utilize application software and utilities to perform analyses, generate reports, sort and categorize data, etc.;
understand and follow oral and/or written policies, procedures and instructions;
make sound and reasonable decisions in accordance with laws, ordinances, regulations, and established procedures;
develop and update procedure and operational manuals;
conduct tests, analyze results, detect errors and take corrective action, both in the office and the field; and
establish and maintain effective working relationships with City staff.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included does not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

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MZ/js
CS4727.DOCX
EEO-Tech
JOB FCTN-INT
Non-DOT Safety and Security-Y
CDL-N
RESP-N
PAY GRADE: 56
IND-9410
SWORN-No
Non-DOT Random-N
DOT-N
INCREMENTS 51-200