System Software

Job Code	Job Title	Pay Grade
1633P2	System Software Analyst I	28
1634P2	System Software Analyst II	30
1635P2	System Software Analyst III	32

CONCEPT:
Research, design, develop, and test operating systems level software, compilers, and network distribution software. Set operational specifications, formulate, and analyze software requirements. Analyze user requirements, procedures and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations.

TASKS

- Analyze information to determine, recommend and plan installation of a new system or modification of an existing system.
- Confer with data processing and project managers to obtain information on limitations and capabilities for data processing projects.
- Consult with network staff to evaluate interfaces between hardware and software, develop specifications and performance requirements and resolve customer problems.
- Coordinate installation of software systems.
- Design and develop software systems using scientific analysis and mathematical models to predict and measure outcome and consequences of design.
- Develop and direct software system testing and validation procedures.
- Direct software programming and development of documentation.
- Assess the usefulness of pre-developed application packages and adapt to a user environment.
- Determine computer software or hardware needed to set up or alter system.
- Develop, document and revise system design procedures, test procedures, and quality standards.
- Recommend new equipment or software packages.
- Develop standards and guidelines to guide the use and acquisition of software and to protect vulnerable information.

LEVELS OF WORK

System Software Analyst I: This is routine technical work assisting in database maintenance and/or system software programming and analysis including analysis, development and maintenance of system software or telecommunications software programs. Work includes coding and maintaining utility programs, control language, and input/output handling programs from detailed specifications. Assists in the coding of benchmark testing, job accounting, and other control modules; assists in the installation, tailoring, testing, documentation, and maintenance of systems software or telecommunications software packages. Assists in maintaining program libraries, technical manuals, and database dictionaries. Work is of a structured nature involving simple analysis of data and performed under immediate supervision.
Minimum Requirements: Successful completion of 12 hours in computer science coursework or certification and six months experience in system software programming and analysis or one year experience in system software programming and analysis or database implementation and maintenance. Education may be substituted for experience as determined relevant by the agency.

System Software Analyst II: This is full performance technical work in the design, modification, implementation, and maintenance of systems software, simple databases, and/or telecommunications programming and analysis from detailed specifications. Work includes responsibility for installation, tailoring, testing, documentation, and maintenance of system software, and/or telecommunications software programs including the design, coding, testing and debugging. Employees at this level work under general supervision, receiving some instructions with respect to the details. Work is standardized and performed within established procedures, methods and policies. Involves no supervisory or leadership responsibility.
Minimum Requirements: Successful completion of 24 hours in computer science coursework or certification and one year experience in system software programming and analysis or two years experience in system software programming and analysis or database implementation and maintenance. Education may be substituted for experience as determined relevant by the agency.

System Software Analyst III: This is advanced technical work providing design and implementation and maintenance of complex system software programming and analysis. Work involves the development of specifications, designing, modifying and maintaining complex systems software, or telecommunications software packages. Incumbents have responsibility for the more complex systems dealing with the overall operating system, with sophisticated file maintenance routines, large telecommunications networks or with advanced mathematical scientific software packages. Incumbents at this level function as a senior consultant or top technical consultant in one or more highly specialized areas of systems software or telecommunications software analysis and programming. Employees at this level receive a general outline of the work and checked periodically for progress and conformance to established policies and requirements. Work involves leadership as a senior consultant or project leader, or supervision of a small staff, performing the same or similar work as those overseen.
Minimum Qualifications: Successful completion of 24 hours in computer science coursework or certification and three years experience in system software programming and analysis or four years experience in system software programming and analysis or database implementation and maintenance. Education may be substituted for experience as determined relevant by the agency.

NECESSARY SPECIAL REQUIREMENTS
Some positions in this class series may require a security clearance at the time of appointment.

NC: 08/05
REV: 6/16
REV: 6/24