The roles and responsibilities of the library systems officer continues to change as libraries move beyond the automation of library functions to offering resources in electronic formats and electronic access to information about collections beyond the walls of the home institution. This survey was designed to collect data and document some of the changes that have occurred in the organization of systems offices in Association of Research Libraries (ARL). All 119 ARL member libraries were surveyed; 75 responded (63% response rate). Results are compared to a similar 1990 survey. Titles for the heads of systems offices varied: in 1990, the most common were "Head Library Systems," "Head of Systems," and "Systems Librarian"; in 1994, they were "Head Library Systems" and "Systems Manager." There are 691 systems office employees in the responding 75 libraries, reflecting a 37% increase from 1990. There was a 205% increase in network specialists, 307% increase in librarians, 33% increase in computer specialists, and a 46% decrease in clerical help. The maintenance of the library management system is still the most common activity of systems offices. Only one activity, maintaining a mainframe computer, showed a decrease. Offices working on gopher, Mosaic, etc. showed over a 1000% increase; those working with CWIS (Campus Wide Information Service) a 773% increase, and patron access to remote databases (e.g., Carl UnCover) a 475% increase. Respondents raised a number of questions related to systems offices not covered by the survey, which fell into the categories of planning and budgets; organization structure and interdepartmental relationships; trends in computing; and education and professional development. Following survey results, organization charts of 18 and position descriptions from 13 ARL libraries are provided. The survey instrument is included. Twenty-one organizational charts of universities in the United States and Canada are included. References are provided for seven selected readings. (MAS)
Flyer 211

Library Systems Office Organization
September 1995

INTRODUCTION

In the "early" days of library automation most, if not all, of the efforts of library systems offices were directed toward traditional library functions of cataloging, circulation, acquisitions, serials control, and the OPAC. These efforts included implementing and maintaining a locally developed or purchased library management system, and supporting equipment for use with a bibliographic utility such as OCLC or RLIN. Systems offices provided leadership as libraries changed automated systems—in some cases even two or three times. In the 1980s, systems offices began to assume additional responsibilities: installing and maintaining staff microcomputers and peripherals, and training library employees to use them. In library public services, the focus began to shift toward automated patron-centered services, beginning with the addition of locally mounted databases and CD-ROMs. This shift was followed by local area networks and networked CD-ROMs, most often installed through the efforts of library systems offices.

But perhaps the most significant change was the use of the Internet in providing library services. The Internet Hunt gave end-users an opportunity to test their navigational skills on the Internet. Interest in these services exploded as the media examined the Information Superhighway and Web browsers. Libraries began to explore the provision of Internet access as more and more information resources became available and interest in them rose. As a result, libraries added staff or redirected their energies to work with these emerging electronic, patron-centered services.

SURVEY RESULTS

This survey was distributed to all 119 ARL member libraries in November 1994. Seventy-five of the survey responses were used in this SPEC Kit for a 63% response rate.

Titles and reporting. The titles for the heads of systems offices in ARL libraries are varied although the majority included "systems" in the title. In 1990, the most common titles were Head Library Systems, Head of Systems, and Systems Librarian. In 1994, the most common titles were Head Library Systems and Systems Manager. Although the title of the person to whom the head of systems reported varied, the majority of the responses fell into two categories. In both 1990 and 1994 about half of the heads of systems offices reported to the Dean or the Director of Libraries, while the other half reported to an Assistant or an Associate Dean or Director. Interestingly, two of the libraries reported that Head of Library Systems is a new position added since 1990.

The most commonly reported means of communication from the systems office to the library faculty and staff is electronic mail, although the telephone might have ranked higher had it been included on the survey instrument. The least commonly used choice was the library newsletter.

Number of positions. There are 691 systems office employees in the 75 responding libraries, reflecting a 37% increase compared to 504 reported in 1990. Each of the seven staff categories surveyed showed an increase, with the exception of clerical staff which showed a 46% decrease. Most significant was the 205% increase in the number of network specialists. There was a 30% increase in the number of librarians and a 33% increase in the number of computer specialists. The use of student assistants increased by 55%.

The most common reason for staff additions was to address new technologies, excluding local area networks. The third most common reason for adding staff was to work with local area networks. Library or system-wide reorganization and the migration to a new automated system were also significant reasons for adding systems office staff.

Although the number of staff in most libraries systems offices has increased through additional hiring or reorganization, the demand is not always satisfied. In some cases, technical support may be somewhat decentralized, with individual departments gaining a higher level of expertise and assuming some level of responsibility for automated technologies within their department. A few libraries were interested in outsourcing trends for various systems functions such as mainframe operations support, LAN management, microcomputer repairs, and applications programming. One library was interested in strategies for transferring computer center staff to the systems office.

Activities. The maintenance of the library management
system is still the most common activity for systems offices. In 1994, 72 of the 75 libraries reported responsibility for this work; in 1990, only 70 of the 75 systems offices maintained a library management system. This activity, no doubt, will continue to be a major responsibility of libraries systems offices. Only one activity, maintaining a mainframe computer, showed a decrease; only 21 libraries reported this responsibility in 1994, down 28% from 29 libraries in 1990.

Three activities, all reflecting the trend toward increased patron-centered activities, showed tremendous increases. The largest percentage increase was systems offices working on Gopher, Mosaic, etc. Fifty-seven libraries reported involvement in this area, compared with only five libraries in 1990, an increase of more than 1000%. In a related activity, 25 libraries were working with CWIS in 1994 while only three were doing so in 1990, a 733% increase. Patron access to remote databases (e.g., CARL UnCover, OCLC FirstSearch) showed a 475% increase with 46 systems offices working in this area, up from eight in 1990. Locally mounted databases (up 218%) and networked CD-ROMs (up 118%) showed substantial increases as well.

Unfortunately, questions pertaining to microcomputer repair, computer hardware/software training classes, and designing staff workstations were accidentally omitted from the survey instrument. However, a number of libraries reported their activity in these areas in the "other" category. Had microcomputer support been included in the survey, this responsibility probably would have experienced an increase since 1990. Several libraries reported that they are not able to devote the time needed to provide adequate microcomputer training.

**Relationships.** Respondents raised a number of interesting questions related to systems offices that were not covered by this survey. For the most part these questions fell into the categories of planning and budgets; organizational structure and interdepartmental relationships; trends in computing; and education and professional development. The topics raise a number of interesting questions that warrant further exploration.

Several sites mentioned an increasing need for the library systems office to play a role in the strategic and budgetary planning processes not only of the library, but also at the university level. There is a need to communicate information about the rapidly changing technologies in electronic information resources and the costs of providing this access. The expanding number of networks, microcomputer workstations, and servers to perform job-related activities and to provide service to patrons create additional costs. The cost of upgrading or replacing this equipment with its relatively short life-cycle adds to the capital budgetary requirements; however, few libraries are able to address adequately the requirements for telecommunications, microcomputer hardware and software purchases and maintenance costs.

The role of the library systems offices in relation to other library departments, campus computer centers, and other university departments is also important. The placement of the systems office within the organizational structure of the library has an impact on the projects in which the systems office is involved and the level of support provided. The level of support may vary from supporting only the mainframe to supporting every automated system within the library. For systems offices with a wide range of responsibilities, close coordination of tasks and responsibilities becomes very important.

Interaction with the computing center is also vital on many campuses. Many libraries depend on the campus computing center department for the support of various information systems within the libraries. Accountability may become increasingly blurred if the library assumes responsibility for Internet/Web training or operates in a distributed computing environment. The client-server environment will require that the systems office staff and individuals in other departments become skilled at diagnosing problems and find ready solutions. Service lines may also become clouded when academic departments acquire services such as document delivery or electronic bibliographic databases.

Another area for further exploration is the educational backgrounds and professional experience of the staff of the systems office. Some libraries expressed interest in hiring computer professionals to supplement the technical expertise of the department. The amount of time spent working on a project or task as well as the qualifications of the person assigned to it is also of interest. One library was concerned with problems associated with overspecialization, and another was worried about the turnover rate in the systems office.

**Conclusion**

As an ever increasing number of library functions are automated and services become more dependent on electronic information resources, there is a corresponding need for involvement from the systems office. Systems offices find increased demand on their time due to the escalating amounts of equipment and the increasing complexity of hardware and software applications. Systems office staff will require continuing education courses and need to be active in professional associations in order to maintain their expertise in this rapidly changing, increasingly complex, environment.

*This Kit and Flyer were compiled by Scott P. Muir, University of Alabama, and were prepared as part of the OMS Collaborative Research/Writing Program.*
Library Systems Office Organization

A SPEC Kit compiled by

Scott P. Muir
University of Alabama

September 1995

Editor....Laura A. Rounds, OMS Program Officer for Information Services
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This year marks the 25th anniversary of the establishment of the ARL Office of Management Services. Committed to assisting research and academic libraries in the continuous improvement of management systems, OMS has worked with its constituents since 1970 to seek the best practices for meeting the needs of users. The OMS Information Services Program maintains an active publications program best known for its Systems and Procedures Exchange Center (SPEC) Kits. Through the OMS Collaborative Research/Writing Program, librarians work with OMS staff in joint research and writing projects. Participants and staff work together in survey design, writing, and editing publications that provide valuable insights and management perspectives on emerging trends, issues, and concerns of the academic and research library community. Originally established as an information source for ARL member libraries, the SPEC program has grown to serve the needs of the library community world-wide.

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Published ten times per year, SPEC Kits and Flyers contain the most valuable, up-to-date information on the latest issues of concern to libraries and librarians today. SPEC Kits and Flyers are the result of a program of surveys on a variety of topics related to current practice and management of library programs in the ARL membership. The SPEC Flyer is a two-page summary of the status of a current area of interest. It comments on the present situation, reports on the results of an ARL membership survey, and forecasts future trends. The SPEC Kit contains the SPEC Flyer and the best representative supporting documentation from the survey in the form of policy statements, handbooks, manuals, cost studies, user studies, procedure statements, planning materials, and issue summaries. A valuable feature of each SPEC Kit is its selected reading list containing the most current literature available on the topic for further study.

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SURVEY RESULTS
TO: SPEC Liaisons

FROM: Laura A. Rounds, OMS Program Officer for Information Services
Scott P. Muir, Systems Officer, University of Alabama

DATE: November 15, 1994

SUBJ: SPEC Survey and Call for Documents on the Library Systems Office

The role and responsibilities of the library systems officer continues to change as libraries move beyond the automation of library functions to offering resources in electronic formats and electronic access to information about collections beyond the walls of the home institution. This survey is designed to gather data and document some of the changes that have occurred in the organization of systems offices in ARL libraries. The year 1990 was selected as the comparison base as it marks the beginning of the Internet’s exponential growth. The questions will help us examine the organization structure, staffing levels, and how or if systems offices have changed in recent years.

We realize that some of these questions may be difficult to answer because of the variety of approaches taken to management of the library systems function. Your response to each item is important to us, however, so please respond as fully as you need to, using extra sheets or the back of the questionnaire to qualify or amplify your responses.

Please return completed surveys and relevant materials by January 6, 1995 to Scott P. Muir, Systems Office, Main Library, The University of Alabama, Box 870266, Tuscaloosa, AL 35487-0266. If you have any questions about this survey, you may reach Scott by phone at (205) 348-2299 or via email at smuir@ualvm.ua.edu.

Please note:
Submitted documentation is subject to publication in the resulting SPEC Kit. We therefore ask that the cleanest possible copy be provided, and that any other qualifying information be written in pencil or, preferably, on an attached sticky note.

In order that the person completing this survey may have all the necessary information, we ask that this cover sheet not be detached until the survey is ready to be returned to the conductor.
1. What is the title of the head of systems office?

   1994 1990

   Dean/Director of Libraries 35 31
   Asst. or Assoc. Dean/Director, AUL 36 38
   Director of Computer Center 0 0
   Head of Reference 0 0
   Other 3 3

   Most of the titles were unique. The number following some titles is the number of institutions reporting that title for the head of the systems office, unless otherwise marked the count is one. See page 4 for detailed breakdown.

2. To whom does the systems office report? Please provide current library organizational chart.

<table>
<thead>
<tr>
<th>Title</th>
<th>1994</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean/Director of Libraries</td>
<td>35</td>
<td>31</td>
</tr>
<tr>
<td>Asst. or Assoc. Dean/Director, AUL</td>
<td>36</td>
<td>38</td>
</tr>
<tr>
<td>Director of Computer Center</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Head of Reference</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

   Other included: Director of Administration, National Librarian, and Director-Automated Services. Two libraries indicated the Head of Systems Office as a newly created position since 1990.
1994

Adjoint au Director pour les Systemes Informatises
Assistant Dean - 2
Assistant Dean Library Information Systems
Assistant Director
Assistant Director for Library Automation
Assistant Director for Library Computing Systems
Assistant Director for Library Systems
Assistant Director Automated Systems
Assistant Director Librarian Systems
Assistant Director Systems
Asst. Univ. Libn. for Information Technology
Asst. Univ. Libn. for Systems
Asst. Univ. Libn. for Library Info. Technology
Associate Director Information Technology
Associate Director for Systems & Planning
Associate Librarian Systems
Assoc. Univ. Libn. for Access Services and Systems
Assoc. University Librarian Administrative Services
Associate University Librarian
Assoc. Univ. Libn. for Information and Research
Assoc. Univ. Libn. for Technical Services
Automated Systems Coordinator
Department Head
Director Library/Computing Services
Director Information Systems and Technology
Director of Information Technology
Director of Library Systems
Director of Systems
Director General Information Technology Services
Head ITS
Head Library Automation and Technical Support
Head Library Computer Systems
Head Library Instruction Systems and Technology
Head Library Systems - 6
Head Library Systems and Automation Department
Head Library Systems Development
Head Library Systems Office - 3
Head Library Technology Services
Head of Automated Services
Head of Plant Management
Head of Library Automation
Head of Local Systems
Head of Systems - 4
Head Systems and Database Management
Head Systems Department - 3
Library Systems Director
Library Systems Manager
Library Systems/Planning Officer
Manager Information Systems
Manager Library Automation
Manager Library Systems Programming
Programmer/Analyst
Systems Administrator
Systems Department Chair
Systems Librarian
Systems Manager - 6
Systems Officer
Team Leader

1990

Assistant Director for Systems and Administration Services
Assistant Director for Automated Services
Assistant Director
Assistant Director for Library Systems
Assistant Director of Library Systems
Assist. Univ. Libn. for Administration
Assist. Univ. Libn. for Automated Services
Assist. Univ. Libn. for Systems and Technical Services
Associate Director for Systems and Planning
Associate Director Information Technology
Associate Librarian Systems and Planning
Associate Librarian Systems and Technical Processing
Assoc. Univ. Libn. Administrative Services
Assoc. Univ. Libn. for Academic Information Services
Assoc. Univ. Libn. Systems Development
Automated Systems Coordinator
Conseiller aux Systemes informatises
Coordinator
Coordinator Library Technology Svcs\Sr. Systems Analyst
Department Head
Director
Director General Information Technology Services
Director Library Computing Services
Director Library Public Services
Director of Library Systems - 2
Director of Information Systems Development
Head ITS
Head Library Computer Systems
Head Library Systems - 5
Head Library Systems Development
Head Library Systems Office - 3
Head Library Technology and Systems
Head of Local Systems
Head of Plant Management
Head of Systems - 6
Head Systems
Head Systems and Development
Head Systems Department - 3
Library Systems\Planning Officer
Library Systems Manager
Manager Computing Services
Manager Information Systems
Manager Library Automation
Programmer\Analyst
Systems Librarian - 8
Systems Manager
Systems Officer
Systems Planning Librarian
3. List the number of employees in your Systems Office by classification for 1990 and 1994. Please provide job descriptions where available.

<table>
<thead>
<tr>
<th></th>
<th>1994</th>
<th>1990</th>
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</thead>
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<tr>
<td>Librarians</td>
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<td>16</td>
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<tr>
<td></td>
<td>1-2</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>14</td>
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<tr>
<td></td>
<td>5-7</td>
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<td></td>
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<td></td>
<td>16-23</td>
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<td></td>
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<tr>
<td>libraries</td>
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<td></td>
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<tr>
<td>Computer Specialists</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>1-2</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>5-9</td>
<td>10</td>
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<tr>
<td></td>
<td>10-12</td>
<td>3</td>
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<td></td>
<td>13-36</td>
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<tr>
<td>Total number</td>
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<td>203</td>
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<tr>
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<td></td>
</tr>
<tr>
<td>Network Specialists</td>
<td>0</td>
<td>41</td>
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<tr>
<td></td>
<td>1-2</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>6</td>
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<tr>
<td>Total number</td>
<td>52</td>
<td>17</td>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>libraries</td>
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<tr>
<td>Support Staff</td>
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<tr>
<td></td>
<td>1-2</td>
<td>24</td>
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<tr>
<td>Total number</td>
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<td>70</td>
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<tr>
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<td></td>
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<tr>
<td>Clerical</td>
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<td>59</td>
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<tr>
<td></td>
<td>1-2</td>
<td>16</td>
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<tr>
<td></td>
<td>3-9</td>
<td>0</td>
</tr>
<tr>
<td>Total number</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>employed in all</td>
<td></td>
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</tr>
<tr>
<td>libraries</td>
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<td></td>
</tr>
<tr>
<td>FTE Student Assts</td>
<td>0</td>
<td>30</td>
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<tr>
<td></td>
<td>1-2</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td>3-4</td>
<td>10</td>
</tr>
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<tr>
<td>Total number</td>
<td>81</td>
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<td>libraries</td>
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<tr>
<td>(Partial FTE</td>
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<td></td>
</tr>
<tr>
<td>counts were</td>
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<td></td>
</tr>
<tr>
<td>rounded up to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>the nearest FTE.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>66</td>
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<td>1-2</td>
<td>6</td>
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<td>2</td>
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<td></td>
<td>5-9</td>
<td>1</td>
</tr>
<tr>
<td>Total number</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>employed in all</td>
<td></td>
<td></td>
</tr>
<tr>
<td>libraries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Other included: Programmers, Computer Operators, Administrative employees, Training Coordinator, Media Professional, Temporary Employees, Office Manager, Technical Support Staff.
4. Provide specific comments or explanations for any major changes in your Library's organizational structure that affected the systems office.

Comments related to Question 4 have been assigned to broad categories. Comments may have applied to more than one category.

- **20** Added staff to address new technologies, other than LANs
- **19** Library or system-wide reorganization
- **10** Added staff to address local area network technologies
- **7** Migration to new automated system in process or recently completed
- **4** Addition of training/instruction to systems office responsibilities
- **3** Systems Office or entire organization under evaluation
- **3** Decentralization of systems office responsibilities
- **2** Upgrade of the expertise levels of the staff
- **2** Temporary re-assignments
- **2** Locally mounted databases (non CD-ROM) added to system

5. Which of the following activities are among the Systems Office's major responsibilities, currently and in 1990? Check all that apply.

<table>
<thead>
<tr>
<th>Activity</th>
<th>1994</th>
<th>1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library system: OPAC, Circulation, Acquisitions, Cataloging, etc.</td>
<td>72</td>
<td>70</td>
</tr>
<tr>
<td>Maintaining mainframe</td>
<td>21</td>
<td>29</td>
</tr>
<tr>
<td>Applications development</td>
<td>45</td>
<td>38</td>
</tr>
<tr>
<td>Purchase of hardware/software directly from vendors</td>
<td>65</td>
<td>58</td>
</tr>
<tr>
<td>OCLC, RLIN, WLN, UTLAS</td>
<td>51</td>
<td>44</td>
</tr>
<tr>
<td>LANs</td>
<td>63</td>
<td>22</td>
</tr>
<tr>
<td>WANs</td>
<td>30</td>
<td>15</td>
</tr>
<tr>
<td>Stand-alone CD-ROMs</td>
<td>53</td>
<td>42</td>
</tr>
<tr>
<td>Networked CD-ROMs</td>
<td>54</td>
<td>17</td>
</tr>
<tr>
<td>Locally-mounted databases</td>
<td>48</td>
<td>22</td>
</tr>
<tr>
<td>Gopher, Mosaic, etc.</td>
<td>57</td>
<td>5</td>
</tr>
<tr>
<td>CWIS</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>Patron access to remote databases (e.g. CARL UnCover, FirstSearch)</td>
<td>46</td>
<td>8</td>
</tr>
</tbody>
</table>

Microcomputer repair, Computer hardware/software training classes, and Designing staff workstations were accidentally omitted from the original survey instrument.

Other responsibilities include:

**Specific Applications**: ARIEL; third party systems; serve as e-mail administrator; support office automation products: WordPerfect, Microsoft Word, Lotus, etc.

**Equipment**: Microcomputer (and peripherals) purchase; configuration installation; maintenance; operate Unix Servers; terminals; tape library; RS6000- Internet servers; Linux PS Internet Servers; OS/2 PC remote CD sever; install network cabling.

**Locally designed systems**: Automated ILL software; electronic reserves; image database development.

**Training**: Staff technology instruction; consulting; microcomputer applications training; lab maintenance.

**Liaison**: Serve as liaison at the local, regional, state and national levels.
6. How does the Systems Office communicate with other library departments? (Check all that apply).

**Average of the rankings**

4. Through formal contacts in each department
2. Informal contacts
1. Electronic mail
5. Listservs
6. Written communication/memos
7. Library newsletter
3. Inter-departmental meetings

**Other:**
locally created electronic help documents, Web/Gopher server, training sessions, telephone, voice mail, organized meetings, and library committees.

7. Are there other issues or comments not addressed by this survey?

Comments have been assigned to broad categories, but may have applied to more than one.

**Planning & Budgets**
Systems office role in Library and University strategic planning, the need for systems office to have a role in campus-wide planning;
Capital budget trends for microcomputers: hardware, software, maintenance and support, telecommunications, mainframe purchase and maintenance, increasing complexity of automated systems and budgets which do not keep pace.

**Organization Structure, Interdepartmental Relationships**
Relationship of the Libraries Systems Office to campus computing center
Systems Office placement within library organization
Automated systems functions in other units in the libraries
Reorganization of staffing (campus-wide) to directly support library automation projects
Responsibilities of systems office in departmental projects involving automation technologies, need for increased technical support at departmental or unit level
Time spent by systems office staff on various responsibilities: LANs, OCLC or RLIN, CD-ROMs, microcomputers, terminals, training, WWW and gopher development and maintenance, customized programming, software installation
Issue of decentralized support in a consortium
Decentralized support within library for automated technologies
TQM initiatives
Turnover rates of systems office staff

**Trends in Computing**
Outsourcing: mainframe operations, LAN management, microcomputer repairs, applications programming
Increased volume of activity requiring systems office attention and support
Increasing use of distributed computing
Duplication of electronic information resources in academic departments outside the library

**Education & Professional Development**
Training impact and career changes for systems office due to changing technologies
Experience and education backgrounds of systems office staffs
Specialization of staffing in Systems Office, pros and cons
Higher levels of computer literacy or competency of library staff needed
Lack of time by systems office staff to provide training to library staff
Computer professional working in libraries
Professional association activities
ORGANIZATION CHARTS
University of Alberta Library: Organizational Matrix

PROPOSED:
DECEMBER, 1993
University of Maryland Libraries
Information Technology Division (ITD)

Information Technology
(Associate Director + OS-III [C])

Applications
(Lib-II)
Bibliographic Access
Lib-I
Lib-I [C]
Holdings Management
Lib-I
Lib-I [C]
Lib-I [P]
User Services
AL-II [C]
AL-II [C]

Operations
(Computing Services Manager)
Computer Operations
DP Comp Ops Shift Supervisor
DP Comp Op-I (Day)
DP Comp Op-II (Swing)
DP Control Clerk Lead (Graveyard)

Development
(Project Manager)
Network Services
Systems Analyst
Programming Support
Programmer [C]
Programmer [C, vacant]
Microcomputer Support
Tele Tech-III
Tele Tech-I [C]

[C] = Contract
[T] = Temporary
[P] = Part-time
NORTHWESTERN UNIVERSITY LIBRARY
Administrative Structure

Provoest

University Library Committee

University Librarian

Library Development

AUL for Collection Management
- Africana
- Bibliographers
- Curriculum
- Music Library
- Listening Center
- Preservation
  - Conservation Laboratory
  - Material Processing
  - Preservation Assessment and Replacement
- Special Collections
  - Art Collection
- Transportation Library
- University Archives

AUL for Information Technology
- Library Management Systems
- Network Systems and Support
- User Support Services

AUL for General Services
- Facility Management
- Photocopy Services
- Security and Entrance/Exit Control

AUL for Public Services
- Circulation Services
- Library Privileges
- Stack Control
- Core Collection
- Government Publications and Map Department

AUL for Technical Services
- Bibliographic Record Services
- Catalog
- Catalog Management
- Marking
- Serials and Acquisitions Services
- Monographic Orders
- Gifts and Exchanges
- Serials Acquisitions
- Serials Cataloging

AUL for Public Services
- Interlibrary Loan
- Media Center
- Newspaper/Microtext
- Reference
  - Information Desk
  - Periodicals Room
  - Reserve Book Room

Schaffner Library
Science-Engineering Library
Geology Library
Math Library

Business and Finance
- Purchasing
- Shipping and Receiving

Personnel
Information Technology Division
Organization Chart

September 8, 1994
Executive Committee (elected faculty)

University Librarian and Dean of the University Libraries

*Associate UL

Special Assistant to the Dean for Library Innovation

AUL Administrative Services

*AUL Collection Development

Associate Dean for Development

Associate Dean for Library Technology

AUL Public Services

AUL Technical Services and Systems

Coordinator of Annual Gifts and Special Events

*Held by same person
POSITION DESCRIPTIONS
Library Technology Operations Manager

One of Canada's most technologically advanced research libraries seeks outstanding candidates for the position of Technology Operations Manager. This position is at the Librarian 5 level, with a salary range of $47,921 - $66,577. Our staff of 14 in Information Technology Services:

- designs and supports the largest Novell LAN configuration on campus - over 500 PC workstations in 11 networks providing office productivity solutions, public catalogue access, CD Rom database services, and microcomputer laboratory facilities, connected through fibre optic spread spectrum radio links to the campus network and the Internet
- maintains one of the largest DRA (Data Research Associates) integrated library systems in North America, serving a regional library consortium of 20 libraries, and containing a database of 3.8 million items
- operates SUN and IBM RS/6000 database servers providing Internet access to a Library Wide Information System (LWIS) and a range of health care databases (The Health Knowledge Network)
- provides technical consultation and support to a newly formed University Information Enterprises unit which extends products and services beyond the University community through innovative business partnerships

Under the strategic direction of the Head of ITS, you will oversee the implementation, day-to-day operations and expansion of these network-based information systems and the continued development of a first-class customer service team.

The ideal candidate is an effective communicator with an understanding not only of the technology but the politics of network-based information services and cooperative system development. You are an organized project manager, transforming strategic vision into reality through effective team building, a knowledge of technology solutions and sound financial planning. In addition to a MLS degree, you bring with you broad hands-on experience, background in managing library automation applications and networks in a TCP/IP WAN environment, and an understanding of future library directions in client-server computing.

Interested candidates should submit a curriculum vitae and the names of three references by October 31, 1994, to:

Ms. BJ Busch, Associate Director
5-02 Cameron Library
University of Alberta
Edmonton, Alberta T6G 2J8

The University of Alberta is committed to the principle of equity in employment. The University encourages applications from aboriginal persons, disabled persons, members of visible minorities and women.
POSITION ADVERTISEMENT

SYSTEMS LIBRARIAN FOR TRAINING: Trains library faculty and staff in the use of computing software, (both library system software and commercially available software, e.g., Windows, WordPerfect, Lotus, SAS, dBase), by providing a high level of expertise in those packages used by the library. Trains users through formal instruction, documentation, and informal consultation. Supervises student workers in performing the above activities. Coordinates the testing of system enhancements and participates in their final implementation. Develops hardware and software purchase recommendations based upon the needs of individual departments as well as the library in general. Suggests systems enhancements to the Systems Department Head, based upon problem analysis and resolution.

QUALIFICATIONS: REQUIRED: ALA-accredited MLS; strong academic record; plus significant experience with both integrated library system software and commercially available software packages. DESIRED: NOTIS experience; teaching or training experience; technical knowledge of hardware configurations.

Salary minimum is $29,560, higher with experience, with appointment as Librarian II (Assistant Professor); twelve-month appointment; faculty status but not professorial titles; eligibility for tenure; participation in state teachers' retirement (mandatory); TIAA or other additional voluntary retirement plans available; twelve days sick leave; health/life/disability insurance benefits; twenty days annual leave. Research and publication are required for tenure. Offers of employment are contingent upon the verification of the individual's eligibility for employment in the United States. Application review process begins October 5, 1994. Position open October 1, 1994; starting date negotiable. Complete application must include resume, undergraduate and graduate transcripts (photocopies will be accepted initially), and names of at least three current references. APPLY TO: Sherida Downer, Chairperson, Systems Librarian for Training Search Committee, Ralph Brown Draughon Library, Auburn University, AL 36849-5606. Auburn University is an Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.
POSITION DESCRIPTION

DEPT/DIVISION: SYSTEMS DEPARTMENT
POSITION ID NO.: 
REQUISITION NO.: N/A

PERSONNEL DEPARTMENT USE ONLY
Approved Payroll Title:
Personnel Program : 
EDUI Designation :

DEPARTMENT REQUEST FOR:
Proposed Title:
Date Received :

EMPLOYEE
Name :
Payroll Title: Computer Resource Manager II
Telephone : 4-1287 Mail Code: 0175T

SUPERVISOR
Name : Bruce Miller
Payroll Title: AUL for Technical Services
Telephone : x4-1237

POSITION INFORMATION
Work Location : UNIVERSITY LIBRARY SYSTEMS
Appointment Type: CAREER End Date of Appointment : INDEF
Percentage Time : 100 Conflict of Interest Designation: NO
Schedule :

TYPE OF SUPERVISION RECEIVED
General Direction

SUPERVISION
Direct

Proc./Analyst IV
Administrative Analyst
Computer Res. Spec. II
Administrative Asst. II
Pr. Elect. Technician (Workleader)
Elect. Technician Trainee
Pr. Elect. Technician (Workleader)

2 FTE casual staff
Indirectly supervises 5 additional FTE plus 4 FTE casual staff and student assistants.

DUTIES SUMMARY
Responsible for leading, organizing, and managing the Library Systems Department to support the Library's role in meeting campuswide information needs. Works with other UCSD departments, outside vendors, and University of California systemwide staff to further this role.
Under general direction of the Assistant University Librarian for Technical Services:

1. PROVIDES LEADERSHIP, ORGANIZATION, AND MANAGEMENT OF THE SYSTEMS DEPARTMENT TO SUPPORT THE LIBRARY’S ROLE IN MEETING CAMPUSWIDE INFORMATION NEEDS THAT ARE SUPPORTED BY ELECTRONIC INFORMATION SYSTEMS.

D A. Supervision and management

   .1 Administration
   Insures the department is administered in accordance with approved Library and campus policies and procedures and that appropriate documentation is maintained to meet UCSD standards.

   .2 User Services
   Insures maintenance of bibliographic systems operations and user support including operation of the integrated online library system (IOLS) that serves both Library staff and the public (multi-cpu; 1.7 million complex bibliographic records in a 4.0 gb database; 250 simultaneous users; supports acquisitions, cataloging, serials control, circulation, public access (ROGER). Insures reliable operation and maintenance of the campus information system (InfoPath). ROGER and InfoPath must approach 100% uptime seven days per week year round).

   .3 Technical Services
   Provides for Novell systems administration, networked and standalone database applications programming, hardware acquisition, network facilities installation and management (including cable, connections, routers, terminal servers, hubs), and end-user technical support for networked and standalone computer systems (e.g., specialized databases and CD-ROM applications), OCLC cataloging and interlibrary loan system (40+ workstations linked to a very large multiple mainframe system in Ohio), and Library administrative systems (LAN supported, five file servers, multiple applications, 500 potential users).

   .4 Projects, Library Data Communications, and Facilities Planning
   Insures proper management and planning for Library network and its connection to campus network, and Library Internet use; serves as resource for and participates in computerized development projects.
D B. Resource requirements: develops and manages Systems Department budget; assists in the development and management of Librarywide automation budget lines (approximately $1,000,000 per year); develops long range automation budget.

D C. Staffing: develops staffing needs as the operating environment changes and insures that appropriate staff types and amounts are maintained to fulfill service obligations.

D D. User services: insures that public systems are reliable and operational during all defined hours of public access; determines and controls priorities for service and insures that Systems Department staff work effectively with other Library staff and vendors to provide the best achievable service.

As E. Security and contingency planning: insures that all Library and computerized systems and data are secure from all hazards and that functional operations can be maintained throughout the Library in all but the most extreme circumstances; maintains a formal contingency and disaster recovery plan for all library computerized systems.

A F. Provides evaluative performance reviews for System Department staff to insure quality; provides and supports development opportunities for staff.

As G. Develops and maintains appropriate logs and reports to monitor staff and system performance.

2. PROVIDES LEADERSHIP FOR THE SYSTEMS DEPARTMENT IN THE DEVELOPMENT OF EFFECTIVE ACCESS TO AND USE OF ELECTRONIC INFORMATION SOURCES.

D A. Contributes to the formulation of associated Librarywide services and policies.

As 3. WORKS CLOSELY WITH CAMPUS PEERS AND DEPARTMENTS TO INSURE EFFECTIVE INTERACTION AND INTERFACES BETWEEN LIBRARY SYSTEMS AND CAMPUS COMPUTERIZED OPERATIONS, E.G., PAYROLL, ACCOUNTING, ACADEMIC COMPUTING, AND OTHER ADMINISTRATIVE/ACADEMIC SYSTEMS.

As 4. MONITORS UNIVERSITY OF CALIFORNIA SYSTEMWIDE ISSUES REGARDING COMPUTERIZED MANAGEMENT AND INFORMATION RESOURCE SYSTEMS AND CONtributes TO IDENTIFICATION AND RESOLUTION OF THESE ISSUES.

As 5. MAINTAINS AWARENESS OF NATIONAL ISSUES REGARDING COMPUTERIZED MANAGEMENT AND INFORMATION RESOURCES SYSTEMS AND CONtributes TO IDENTIFICATION AND RESOLUTION OF THESE ISSUES THROUGH APPROPRIATE PROFESSIONAL ACTIVITIES.
<table>
<thead>
<tr>
<th>FUNCTION NO.</th>
<th>SKILLS AND KNOWLEDGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Ability to manage and provide leadership in a changing environment, strong interpersonal skills, and the ability to work with Library, campus, other UC staff, and vendors.</td>
</tr>
<tr>
<td>1-3</td>
<td>Successful experience in staff management and project and operational system management activities in a library setting that makes use of computerized resources.</td>
</tr>
<tr>
<td>1-3</td>
<td>Ability to organize and establish priorities for multiple tasks of various complexities and delegate as appropriate.</td>
</tr>
<tr>
<td>All</td>
<td>Demonstrated ability to communicate effectively both orally and in writing.</td>
</tr>
<tr>
<td>1,3</td>
<td>Demonstrated ability to work under the responsibilities associated with sustaining superior support of complex systems which serve large numbers for people.</td>
</tr>
<tr>
<td>All</td>
<td>Demonstrated understanding of the computing needs of a complex academic research library environment.</td>
</tr>
<tr>
<td>All</td>
<td>Demonstrated experience in recognizing the need for, specifying, designing, and implementing complex and innovative electronic information systems.</td>
</tr>
<tr>
<td>ALL</td>
<td>Demonstrated understanding of systems analysis and programming.</td>
</tr>
<tr>
<td>All</td>
<td>Demonstrated understanding of the internal workings of the hardware and software involved in complex computer systems.</td>
</tr>
<tr>
<td>1-2</td>
<td>Knowledge of library processes, procedures, and operations and the requirements for their current and future automation.</td>
</tr>
<tr>
<td>All</td>
<td>General knowledge of library, campus, and UC policies, procedures, standards, organization, and structure.</td>
</tr>
</tbody>
</table>

Employee__________________________

Supervisor_________________________
Request: Update of job description

Name:

Dept/Division: Library/Systems Dept.
Ext: 41235
Unit/Mail code: 0265/0175
Work location: University Library
Payroll title: P/A IV
Working title: NASO (Network and AdCom Services Officer)
Percent of time: 100%

Name of supervisor:
Ext/Mail code: 41287/0175
Payroll title: CRM

Duties summary: Coordinates, facilitates and participates in planning and delivering network services to UCSD Libraries and campus. Directs Network Facilities and Novell Network managers and Microcomputer Applications Programmer. Participates in procurement of hardware, software and premise facilities to deliver network services and in development and delivery of InfoPath. Leads quality management activities for process management and improvement. Assistant Systems Dept. head. Develops performance measures for the network to evaluate customer satisfaction. Performs customer support including analysis, problem solving and projects. DSA for campus administrative computing. Develops automation contingency plan and is member of security and safety council. Supervises three Programmer/Analysts. Serves on library and campus workgroups and committees.

Special conditions of employment:

Physical requirements:

Type of supervision received: Direction

Names of those supervised:

<table>
<thead>
<tr>
<th>Name of employee</th>
<th>Payroll title</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>P/A II</td>
</tr>
<tr>
<td>100%</td>
<td>P/A II</td>
</tr>
<tr>
<td>100%</td>
<td>P/A II</td>
</tr>
</tbody>
</table>

Number of those supervised through others: varies - casual staff
I. MANAGEMENT

A. Coordinates, facilitates and participates in planning and delivering network services to the UCSD Libraries and the campus through the development, implementation and support of network facilities and systems in the libraries.

B. Directs work of the Network Facilities Manager in planning, developing, installing and operating network facilities in the University Library and branch library/campus locations which are maintained by and for the libraries--includes electronics, premise wiring, etc.

C. Directs work of the Novell Network Manager in planning, developing, installing and operating the Novell network maintained by and for the libraries--includes five file servers, remote access facilities, CD ROM server, etc. for about 350 workstations.

D. Directs work of the Microcomputer Applications Programmer in planning, developing, programming and maintaining networked database applications maintained by and for the libraries--includes primarily administrative software used internally, e.g., ASAP, SOS, Help Desk, ILL statistics, Public Service statistics, etc.

E. Participates in planning, budgeting and procurement of hardware, software and premise facilities needed to deliver network services and applications to the libraries.

F. Participates in the development and delivery of InfoPath by way of membership on various committees (e.g., Enablers and EIS) and through related Systems Dept. assignments.

G. Leads and participates in quality management activities as employed by the Systems Dept. for process management and improvement.

As req’d H. Assistant department head--acts for department head when needed and does other work as assigned.

I. Develops performance measures related to the operation of network equipment, software and media in order to evaluate customer satisfaction with network services and applications.
II. CUSTOMER SUPPORT

D A. Responds promptly to assigned Help calls in Help Desk database--task may range from simple to complex depending on the underlying problems to be resolved or consultation required.

D B. Analyzes problems or situations related to systems procedures, services or products which may require significant coordination and/or substantial resources to resolve.

W C. Works with other Systems staff and/or library staff on projects leading to new or improved systems or services.

W D. Departmental Security Administrator--coordinates and authorizes access to campus administrative computing services and applications (AdCom Systems) and participates on various campus committees to develop and implement new administrative computing interfaces to campus systems.

Y E. Bar code labels--maintains controls and records, places annual call to departments, prepares and places order, receives and distributes label stock and assures quality.

III. CONTINGENCY PLANNING

As req'd A. Develops and coordinates automation contingency plans as part of library disaster planning covering network and computing facilities and systems.

" B. Member of LSSC (Library Security and Safety Council)--participates in library disaster planning and has "essential personnel" designation.

" C. Organizes periodic tests of automation contingency plans to test and improve readiness.

IV. SUPERVISION

D A. Supervises and assigns work to Programmer/Analysts.

As req'd B. Prepares job expectations on performance standards and work rules.

" C. Reviews and implements assignments.

" D. Recommends new technologies.

" E. Schedules staff.

D F. Consults regularly with supervisees.
As req’d G. Conducts unit meetings.

Y/As req. H. Prepares and conducts staff performance evaluations, including communicating and discussing the results with supervisee(s); recommends merit increases and reclassifications.

As req’d I. Has the authority to apply corrective/disciplinary action, up to discharge of supervisee(s), in consultation with the Department Head and the Library Personnel Office.

" J. Has the authority to resolve supervisee(s)’ complaints and/or requests for grievance or administrative review, in consultation with the Department Head and the Library Personnel Office.

" K. Recruits and hires personnel in areas related to network facilities and Novell system operation and management and programming.

" L. Develops or recommends training programs.

V. OTHER RELATED TASKS

W A. Serves on library and campus workgroups and committees including Systems Dept. PMTs and QITs, Enablers, EIS, DCTUG (Departmental Computing Technical Users Group), PAAC (Programmer/Analyst Advisory Committee), etc.

D B. Follows accepted quality management principles and practices as presented in library and campus training sessions.

As req’d C. Handles all library materials according to accepted library preservation practices as presented in library training sessions.

D D. Abides by rules for safety and security as presented in the library training sessions.

As req’d E. Performs other work as assigned.
<table>
<thead>
<tr>
<th>Function/Task</th>
<th>Skills and Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>Comprehensive knowledge of university library functions, activities and operations.</td>
</tr>
<tr>
<td>All</td>
<td>In depth knowledge of and experience with library automation.</td>
</tr>
<tr>
<td>All</td>
<td>Current working knowledge of and experience with networks, computing and data communications.</td>
</tr>
<tr>
<td>I,II,III,V,A</td>
<td>Knowledge of systems design including interfaces, applications and databases.</td>
</tr>
<tr>
<td>I,II,V,A</td>
<td>Knowledge of and ability to program in one or more of the following: COBOL, ALGOL, PL/I, PASCAL, C, C++.</td>
</tr>
<tr>
<td>I,II,III,V,A</td>
<td>Ability to analyze and solve complex problems.</td>
</tr>
<tr>
<td>All</td>
<td>Ability to communicate clearly orally and in writing.</td>
</tr>
<tr>
<td>I.B-D</td>
<td>Ability to manage technical staff.</td>
</tr>
<tr>
<td>I.B-D,IV</td>
<td>Ability to supervise staff effectively.</td>
</tr>
<tr>
<td>I,II,C-D,III, V.A-B</td>
<td>Knowledge of project management principles.</td>
</tr>
<tr>
<td>All</td>
<td>Ability to work effectively with a diverse staff.</td>
</tr>
<tr>
<td>All</td>
<td>Effective interpersonal communication skills.</td>
</tr>
<tr>
<td>I,II,C-D,V.A-B</td>
<td>Ability to provide leadership and direction in a team environment.</td>
</tr>
<tr>
<td>I,B-D,IV,V</td>
<td>Knowledge of UCSD and Library personnel policies and procedures.</td>
</tr>
<tr>
<td>All</td>
<td>Knowledge of UC organization, policies and procedures.</td>
</tr>
</tbody>
</table>
POSITION DESCRIPTION

DEPT/_DIVISION_ : SYSTEMS DEPARTMENT
POSITION #: N/A
REQUISITION #: N/A

PERSONNEL DEPARTMENT USE ONLY
Approved Payroll Title:
Personnel Program:
Base Designation:

------------------------------------------------------------------------------------------------------------------------

EMPLOYEE
Name:
Payroll Title: Programmer/Analyst II
Telephone: 4-6679 Mail Code: 0175T

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SUPERVISOR
Name: Roberta Corbin
Payroll Title: Computing Resources Manager
Telephone: 4-1287 Mail Code: 0175T

------------------------------------------------------------------------------------------------------------------------

POSITION INFORMATION
Work Location: CENTRAL LIBRARY SYSTEMS
Appointment Type: CAREER End Date of Appointment: N/End
Percentage Time: 100% Conflict of Interest Designation: NO
Schedule: 

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TYPE OF SUPERVISION RECEIVED
Direction

------------------------------------------------------------------------------------------------------------------------

WORK LEADER
Programmer Analyst II 100%

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DUTIES SUMMARY

Responsible for the planning, evaluating, designing, developing, testing, implementing, documenting, modifying, and maintaining of UCSD's InfoPath Campus Wide Information System. Provides leadership, expertise, and coordination in implementing and developing new system software features and in enlarging the library of information obtainable through InfoPath. Provides technical knowledge, user assistance and information about tools required to make use of InfoPath and the resources available. Performs other work on a project basis.

------------------------------------------------------------------------------------------------------------------------

SPECIAL CONDITIONS OF EMPLOYMENT

------------------------------------------------------------------------------------------------------------------------

BEST COPY AVAILABLE
<table>
<thead>
<tr>
<th>Freq.</th>
<th>Function/Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>PLANNING AND DESIGN</td>
</tr>
<tr>
<td></td>
<td>A. Participates in overall library systems planning</td>
</tr>
<tr>
<td></td>
<td>- Consults with library administration, librarians, staff, and systems analysts to analyze library needs.</td>
</tr>
<tr>
<td></td>
<td>- Serves on library and campus committees as assigned and participates in national level electronic discussions considering emerging information retrieval technologies.</td>
</tr>
<tr>
<td></td>
<td>- Investigates technical feasibility of options and proposals.</td>
</tr>
<tr>
<td></td>
<td>- Proposes short-term and long-term solutions utilizing current and emerging technologies.</td>
</tr>
<tr>
<td></td>
<td>- Plans and prepares for future development of globally accessible network information resources.</td>
</tr>
<tr>
<td></td>
<td>B. Designs and develops new systems/subsystems which enhance library and campuswide access to network information.</td>
</tr>
<tr>
<td></td>
<td>- Works with appropriate library, campus, and national level groups to gather information required to design systems and develop specifications.</td>
</tr>
<tr>
<td></td>
<td>- Analyzes information and develops solutions based on local library and campus needs and existing resources.</td>
</tr>
<tr>
<td></td>
<td>- Designs data management utilities which automate the flow of information from local to more global modes of access.</td>
</tr>
<tr>
<td></td>
<td>- Designs network information retrieval interfaces which optimize the performance of individual client resources and capabilities.</td>
</tr>
<tr>
<td>2.</td>
<td>DEVELOPMENT</td>
</tr>
<tr>
<td></td>
<td>A. Installs and implements vendor supplied, and public domain resources to support and enhance the performance of library systems.</td>
</tr>
<tr>
<td></td>
<td>- Coordinates and participates in the evaluation, selection, and installation of hardware and software which interface the library systems.</td>
</tr>
<tr>
<td></td>
<td>- Develops appropriate documentation and provides training programs as appropriate.</td>
</tr>
<tr>
<td></td>
<td>B. Modifies existing systems.</td>
</tr>
<tr>
<td></td>
<td>- Works with library administration, librarians, and systems analysts to analyze library needs.</td>
</tr>
<tr>
<td></td>
<td>- Works with library staff and campus committees to gather information required to design systems and develop specifications.</td>
</tr>
<tr>
<td></td>
<td>- Designs data management utilities which automate the flow of information from local to more global modes of access.</td>
</tr>
<tr>
<td></td>
<td>- Designs network information retrieval interfaces which optimize the performance of individual client resources and capabilities.</td>
</tr>
</tbody>
</table>
|       | C. Enables access to network information resources.
3. Works closely with global network information providers, librarians, and other campus departments to develop and implement standards, technologies, and providing access to network resources and data.

4. Develops user and server interface for Infopath, including: new information systems, new groups, new content level, file archives, and databases.

5. Consults with other technical developers and managers at all levels of the university community to determine opportunities to expand the general content and usefulness of InfoPath.

6. Works closely with campus peers and departments to improve effective interaction and interfaces between InfoPath and other campus computerized systems.

Custom or Local Development

1. Develops and enhances automated systems and procedures for acquiring and managing data obtained for InfoPath from campus information providers.

2. Develops customizable Graphical User Interface based software for providing access to the local Infopath system and other globally accessible network information resources.

3. Develops utilities and procedures for maintaining and responding to changes in the availability of local and globally distributed network resources.

MAINTENANCE AND OPERATION - InfoPath

Manages the ongoing acquisition and placement of information from campus providers.

Maintains automated systems and procedures for producing data contained within campus information providers.

Monitors system performance and maps the changes in the availability of local and globally distributed network resources.

TECHNICAL KNOWLEDGE AND USER ASSISTANCE

Manages the ongoing acquisition and placement of information from campus providers.

Manages the ongoing acquisition and placement of information from campus providers.

Manages the ongoing acquisition and placement of information from campus providers.

Manages the ongoing acquisition and placement of information from campus providers.
C. Meets with vendors and attends seminars and workshops to continually update skills and knowledge.

D E. Responds to Help Desk requests.

D F. Assists library staff in making effective use of personal computing resources.

D G. Assists library staff in general programming projects as assigned.

D H. Provides both library and campuswide technical assistance in accessing global network information resources.

D I. Organizes and participates in the delivery of presentations.

D J. Assists in the preparation and dissemination of user documentation for library systems.

5. WORKLEADER (5+)

D A. Hires employee(s) in conjunction with immediate supervisor. Screens applicants, interviews candidates and participates in selection decisions.

D B. Trains and assigns work to new and continuing supervisees(s), provide expectations on performance standards.

D C. Makes recommendations concerning merit increases and reclassifications.

D D. Leads Programmer Analyst(s) developing and enhancing client/server, relational database, free text, multi-media information retrieval systems.

6. SOFTWARE RESOURCE SUPPORT (17+)

D A. Provides both library and campuswide support and technical assistance in locating, acquiring, and using software resources to enhance access to information and enhance the use of internally developed information.

D B. In other accounts, via Infnet/ct, to globally accessible network accessible software archives and databases.

D C. Organizes and enhances access, through Infnet/ct, to globally accessible software archives and documentation distributed throughout the campus community.

D D. Facilitate and coordinate with technical and support staff in providing information from a national wide.
Manages the safe storage, backup, organization, and general accessibility of software collected.

**OTHER RELATED FUNCTIONS**

A. Performs other duties as assigned per classification.

B. Handles all library materials according to accepted library preservation practices as presented in library-training sessions.

C. Participates in the Library Systems Quality Management methods and techniques.

D. Abides by rules for safety and security as presented in the library training sessions.
<table>
<thead>
<tr>
<th>Selection Importance</th>
<th>SKILLS &amp; KNOWLEDGE</th>
<th>Function / Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Extensive knowledge of global network resources and developments in Internet access tools.</td>
<td>I-6</td>
</tr>
<tr>
<td>R</td>
<td>Thorough knowledge of, and experience with UNIX, Macintosh, MS DOS, and Windows operating systems and their administration.</td>
<td>I-6</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of computer networking principles, administration, and file systems in current operating environments, including: Unix, Macintosh, and MS-DOS.</td>
<td>I-6</td>
</tr>
<tr>
<td>R</td>
<td>Demonstrated knowledge of object-oriented technology and the ability to program in the C, C++, and Hypertext languages.</td>
<td>4</td>
</tr>
<tr>
<td>R</td>
<td>Extensive knowledge of a wide range of applications programs and utilities in multiple operating system environments.</td>
<td>1, 4, 6</td>
</tr>
<tr>
<td>R</td>
<td>Demonstrated knowledge of Graphical User Interface design principles.</td>
<td>7</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of computer peripherals and interfaces.</td>
<td>All</td>
</tr>
<tr>
<td>F</td>
<td>Ability to keep abreast of latest technology and standards for implementation into existing computer and networks.</td>
<td>All</td>
</tr>
<tr>
<td>F</td>
<td>Excellent knowledge of and familiarity with the latest computing environment.</td>
<td>11</td>
</tr>
<tr>
<td>F</td>
<td>Ability to provide leadership in a changing IT environment.</td>
<td>10</td>
</tr>
<tr>
<td>F</td>
<td>Ability to work with others, to communicate effectively both orally and in writing.</td>
<td>9</td>
</tr>
<tr>
<td>F</td>
<td>Ability to direct other programmers and staff members.</td>
<td>8</td>
</tr>
</tbody>
</table>
POSITION DESCRIPTION

DEPT/DIVISION: SYSTEMS DEPARTMENT
POSITION ID NO.: 0265-0180-SY
REQUISITION NO.: N/A

PERSONNEL DEPARTMENT USE ONLY

Approved Payroll Title:
Personnel Program : AFSCM  Eff Date:
EDU Designation : CX

DEPARTMENT REQUEST FOR:
Proposed Title:
Date Received:

EMPLOYEE

Name :
Payroll Title: COMPUTER RESOURCE SPECIALIST II
Telephone : 4-2530  Mail Code: 0175T

SUPERVISOR

Name : Roberta Corbin
Payroll Title: Computing Resources Manager (A&PS6)
Telephone : 4-1287  Mail Code: 0175T

POSITION INFORMATION

Work Location : CENTRAL LIBRARY SYSTEMS
Appointment Type : CAREER  End Date of Appointment: INDEF
Percentage of Time: 100  Conflict of Interest Designation: NO
Schedule :

TYPE OF SUPERVISION RECEIVED
General Direction

SUPERVISION

Computer Resource Spec.I  100%
Computer Resource Spec.I  100%


DUTIES SUMMARY

Responsible for the management and coordination of the daily operations of the library bibliographic system (InnoPac) and automated help desk system. Analyzes both bibliographic systems and library systems problems and resolves or forwards as appropriate for resolution. Provides consulting and instructional support to staff, including recommending solutions and guiding users in the use of network-based systems. Provides hardware, software and general consultations in microcomputer/office automation applications. Develops and prepares documentation to simplify library network troubleshooting techniques and bibliographic systems management. Provides input and analysis for planning, staffing and budgeting.

SPECIAL CONDITIONS OF EMPLOYMENT

Provides after hour on-call emergency support by telephone and terminal as required. Works in machine room when necessary. Subject to occasional overtime and call back.

BEST COPY AVAILABLE
Freq.  Function/task

I. PLANNING AND DEVELOPMENT  (20%)
Participates in overall library systems department planning. Works to identify areas for development and executes projects to ensure quality service.

D  A. Works with appropriate staff to gather information required to design and improve existing systems used in the department.

W  B. Develops and prepares documentation to simplify library network troubleshooting techniques and bibliographic systems management.

W  C. Develops and maintains necessary procedures, forms, and logs to identify, route, control and resolve problems.

M  D. Recommends procedural changes to address recurring problems.

D  E. Assists department head in the problem management process. Monitors problem activity, conducts trend analysis, and performs periodic surveys to ensure acceptable service is maintained.

D  F. Maintains awareness of resources and tools that are available to effectively apply new knowledge.

Q  G. Provides management with data for historical analysis in order to measure the systems.

W  H. Attends conferences, meetings, reads current literature and meets with vendors to continually update knowledge.

2. BIBLIOGRAPHIC OPERATIONS AND MAINTENANCE  (15%)
Manages and coordinates the daily operations of the library bibliographic system.

D  A. Oversees use of system and coordination of maintenance, security, production, problem solving, down time, etc.

D  B. Assists with the coordination of activities on other systems including Melvyl, Infopath, and OCLC.

D  C. Assists in the maintaining overall integrity of system data.

D  D. Performs analysis to diagnose problems and interacts with vendors to resolve problems or refers them as appropriate.
Freq. | Function/task
--- | ---
D | E. Reports problems to other shifts using appropriate logs.
D | F. Schedules system usage for special projects and searches as requested by library staff using online systems.
W | G. Assists in coordinating software upgrades and/or special projects on system as needed by the library.
Q | H. Runs statistical reports needed by the library for management purposes.

3. HELP DESK MANAGEMENT (20%)
Coordinates the help desk functions to provide effective and efficient control over the reporting, tracking, and resolution of problems, installations, etc. associated with the library automation environment.

D | A. Supervises and trains help desk staff in the problem reporting procedures (e.g. identifying nature of problem, applying corrective action, possible prevention application, etc.)
D | B. Follows-up daily on outstanding problems.
D | C. Tracks follow-up on old problems.
Q | D. Performs root cause analysis of problems.
D | E. Maintains Help Desk policies and procedures.
W | F. Maintains history of problems and resolutions.
M | G. Recommends procedures and methods to improve the automated help desk system as required.
M | H. Prepares monthly management reports.

4. SUPERVISION (15%)
Supervises staff in unit which performs various computer operations and provides user support to staff in the daily operations of the library bibliographic system and automated problem management system (Help Desk).

As req’d | A. Hires employees in conjunction with immediate supervisor. Screens applicants, interviews candidates and makes selection decisions.
D | B. Trains and assigns work to new and continuing staff. Provides expectations on performance
<table>
<thead>
<tr>
<th>Freq.</th>
<th>Function/task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>standards, university procedures, and work rules.</td>
</tr>
<tr>
<td>S</td>
<td>C. Prepares and conducts evaluations of performance, including communication and discussions of results with the supervisees.</td>
</tr>
<tr>
<td>W</td>
<td>D. Schedules staff in the Operations Unit to insure coverage of the required hours of operation.</td>
</tr>
<tr>
<td>S</td>
<td>E. Makes recommendations concerning merit increases and reclassifications.</td>
</tr>
<tr>
<td>As req'd</td>
<td>F. Has the authority to apply corrective/disciplinary action, up to discharge in consultation with the department head and with the Staff Personnel Office.</td>
</tr>
<tr>
<td>As req'd</td>
<td>G. Has the authority to resolve supervisee’s complaints and/or request for grievance or administrative review, in consultation with the department head and with the Staff Personnel Office.</td>
</tr>
<tr>
<td>As req'd</td>
<td>H. Updates job description cards as required.</td>
</tr>
</tbody>
</table>

5. **TECHNICAL KNOWLEDGE AND USER SUPPORT** (25%)
Maintains current knowledge of InnoPac, various computer equipment, data communications and systems used in the library sufficient to fulfill first-level troubleshooting, problem solving and user support.

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Function/task</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
<td>A. Attends conferences, seminars, meetings, and reads current literature to continually update knowledge.</td>
</tr>
<tr>
<td>D</td>
<td>B. Acts as a central point of contact for library staff in their daily use of library systems.</td>
</tr>
<tr>
<td>D</td>
<td>C. Assists in the resolution of software and hardware problems.</td>
</tr>
<tr>
<td>D</td>
<td>D. Provides technical assistance to library staff on Innopac, microcomputer networking and communications issues.</td>
</tr>
<tr>
<td>D</td>
<td>E. Performs rudimentary functions of the network specialist when required.</td>
</tr>
</tbody>
</table>
Freq. | Function/task
--- | ---
D | F. Provides quick responsiveness to and resolution of user questions and problems.

6. OTHER RELATED FUNCTIONS (5%)

D | A. Assists Innopac Coordinator with the coordination of system setup and problem solving.
W | B. Performs other duties as assigned per classification.
D | C. Participates in Library Systems Quality Management methods and techniques.
D | D. Handles all library materials according to accepted library preservation practices as presented in the library training sessions.
D | E. Abides by rules for safety and security as presented in the library training sessions.
## SKILLS AND KNOWLEDGE

<table>
<thead>
<tr>
<th>Selection Import.</th>
<th>Funct./Task#</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Strong dedication to quality customer service.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Sensitivity to customer needs.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Superior telephone etiquette.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>2-6</td>
</tr>
<tr>
<td>Ability to handle high level of customer interaction.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Strong interpersonal skills including tact, diplomacy and flexibility.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Ability to effectively communicate (both verbally and in writing) and describe system conditions to both the user community and technical personnel.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Ability to be assertive and control conversation when necessary to gather relevant information.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Strong problem-solving skills.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Sound judgement and decision making ability.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Strong initiative and assertiveness.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Strong attention to detail and organization.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Ability to plan and organize work in an efficient manner.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Ability to work well under stress and time pressures.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Ability to schedule and organize work in such a way as to meet required deadlines.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Skill in recognizing system error conditions and applying logic and experience in rectifying them.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Analytical skills in troubleshooting and diagnosing problems with software and hardware.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>2-6</td>
</tr>
<tr>
<td>Detailed knowledge of maintenance functions on and use of the InnoPac systems.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Detailed knowledge of other library automated systems sufficient to do troubleshooting.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-6</td>
</tr>
<tr>
<td>Knowledge and skill in the use of, and in training others in the use of small microcomputer systems and various software packages for wordprocessing, database management systems, spreadsheets, and operating systems.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>1-5</td>
</tr>
<tr>
<td>Detailed knowledge of peripheral hardware used with systems sufficient to operate and perform troubleshooting.</td>
<td>1-5</td>
</tr>
</tbody>
</table>
Knowledge of computer interface media, data communications, storage and backup devices and utilities sufficient for systems maintenance and to resolve or refer problems appropriately.

Knowledge of the MARC record structure and OCLC as used for cataloging sufficient for troubleshooting and referring problems as appropriate.

Knowledge of the computer architecture of IBM PC/XT/AT, 386, and 486 for use, troubleshooting, and referral.

Knowledge and skill in the use of Dos, Windows, Novell Netware, and Unix operating systems to sufficient to provide instructions in the use of and to perform basic troubleshooting.

Knowledge and skill in the library segmented Ethernet to instruct, monitor, detect, resolve and refer problems as appropriate.

Knowledge and skill in the use of Sun workstations and network resource software to instruct, monitor, detect, resolve and refer problems as appropriate.

Knowledge and skill in the use of terminal servers to instruct, monitor, detect, resolve and refer problems as appropriate.

Skill in network monitoring and protocol analysis of TCP/IP protocol suite (IP, TCP, FTP, SMTP) to instruct, monitor, detect, and refer problems for solutions.

Knowledge of library and campus policies, procedures, organization and structure.

General knowledge of library preservation principles.
**POSITION DESCRIPTION**

**PERSONNEL DEPARTMENT USE ONLY**
Approved Payroll Title: Personnel Program : Eff. Date:
EDUI Designation : 

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**DEPARTMENT REQUEST FOR:**
Proposed Title: Date Received:

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**EMPLOYEE**
Name : Payroll Title: Senior Electronics Technician Telephone : 4-6371 Mail Code: 0175T

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**SUPERVISOR**
Name : Roberta Corbin Payroll Title: Computing Resources Manager (A&PS6) Telephone : 4-1287 Mail Code: 0175T

---

**POSITION INFORMATION**
Work Location : CENTRAL LIBRARY SYSTEMS Appointment Type : CAREER End Date of Appointment: INDEF Percentage of Time: 100 Conflict of Interest Designation: NO Schedule :

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**TYPE OF SUPERVISION RECEIVED**
General Direction

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**SUPERVISION**
Workleader : L.A.III (Reclass requested) 100% 3 parttime students Dev.Tech.II Casual

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**DUTIES SUMMARY**
Manages the Systems Dept. technical support unit including the facility and the staff, coordinates assignments, schedules work within the unit, with other Systems Dept. units, and with all other Library departments. Coordinates the outsourcing of repairs, and works with the Help Desk staff to insure smooth operation. Diagnoses, troubleshoots, and repairs equipment. Acts as workleader for technical support staff including participating in hiring, training, evaluating, and disciplining as required. Instructs and advises Library staff on the correct use and maintenance of computer equipment. Works with other Systems staff to plan and coordinate the installation of data communications devices. Acts as backup to the purchasing personnel and carries out other tasks as needed per classification.

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**SPECIAL CONDITIONS OF EMPLOYMENT**
May be required to work occasional evenings, weekends, and overtime.
The Systems Dept. provides support for over 350 networked PCs and Macintosches and 250 terminals plus a wide range of peripheral equipment including printers, barcodes readers, scanners, and CD ROMs. Software support includes WordPerfect, FoxPro, cc:Mail and other packages available on a Novell network. The technical support unit also provides hardware support for the Library’s turnkey Innopac bibliographic system. Systems staff must understand the hardware and software which makes it possible for Library staff to access local, national, and international resources across the campus network and the Internet.

1. **MANAGES THE SYSTEMS DEPT. TECHNICAL SUPPORT UNIT (35%)**

Manages and coordinates the daily operations of the technical support unit.

- D A. Manages, coordinates, and assigns the scheduled work to meet estimated completion dates.
- D B. Insures that all equipment installed or moved gets entered into the LOC ID inventory database.
- D C. Insures that technical support staff update the Help database records promptly and accurately to reflect the current status of jobs.
- D D. Works closely with the Systems Help Desk staff to communicate and coordinate activities and insure smooth operation and customer feedback.
- W E. Insures that jobs get referred to appropriate Systems dept. units as needed.
- W F. Assigns technical support staff to other Systems units (e.g., Novell network, network facilities) as appropriate for specific tasks.
- W G. Organizes and maintains the technical support workroom.
- W H. Coordinates the outsourcing of repairs to outside vendors as appropriate and works with the Systems purchasing unit to evaluate and select outside vendors for equipment repairs.
- M I. Insures appropriate supplies of spare parts and equipment are stocked.
- M J. Organizes and provides staff for installation projects as needed.
- Q K. Works with Library departments and other Systems units to plan, coordinate and schedule moves and major shifts of equipment to insure that equipment is assigned appropriately and will function correctly.
2. COMPUTER HARDWARE INSTALLATION AND REPAIR (30%)

A. Diagnoses and troubleshoots computer hardware and software malfunctions.
B. Coordinates with library staff to facilitate hardware repairs.
C. Repairs equipment on site or in repair facility, as required.
D. Installs new microcomputer and peripheral hardware and software within Central and branch libraries.
E. Re-configures existing hardware and software as required to meet changing requirements.
F. Monitors, updates, and maintains Help Desk database regarding jobs assigned as directed by Library Systems policy.

3. WORKLEADER (15%)

Supervises staff in unit which performs various technical support functions including installation and troubleshooting of hardware and software, repair of hardware, and building specialized cables to connect equipment.

A. Trains and assigns work to new and continuing staff.
B. Schedules staff to insure coverage as needed.
C. Hires employees in conjunction with immediate supervisor. Screens applicants, interviews candidates and makes selection decisions.
D. Communicates expectations on performance standards, university procedures, and work rules.
E. Assists supervisor in preparing and conducting evaluations of performance standards, university procedures, and work rules, including communicating and discussing results with staff.
F. In coordination with supervisor makes recommendations concerning merit increases and reclassifications.
G. In consultation with the department head, with the Staff Personnel Office, and in conformance with the university, policy and/or labor agreement, recommends corrective/disciplinary action, up to discharge.
H. Assists supervisor in resolving staff complaints and/or requests for grievance or administrative review, in consultation with the department head and with Staff Personnel Office.
I. In consultation with supervisor updates job description cards as required.
3. **TECHNICAL KNOWLEDGE AND USER ASSISTANCE (10%)**

   **D** A. Instructs and advises library staff, at all levels, in the correct use and maintenance of automated equipment.

   **M** B. Provides technical training on proper use and care of specific hardware and peripherals.

4. **LIBRARY SYSTEMS INSTALLATION AND OPERATION (5%)**

   **M** A. Configures and installs data communications devices including ports and cabling.

   **M.** B. Builds cable paths to provide phone service from telecommunications demark to workstation.

5. **OTHER RELATED FUNCTIONS (5%)**

   **M** A. Acts as backup to Systems Dept. purchasing personnel.

   **W** B. Maintains current knowledge of new computer and communications hardware and software by reading books, magazines, and journal and interaction with vendor contacts.

   **W** C. Assists Help Desk staff with recording and scheduling responses to Help Desk requests.

   **W** D. Participates in the Library Systems Quality Management methods and techniques.

   **D** E. Handles all library materials according to accepted library preservation practices as presented in the library training sessions.

   **D** F. Abides by rules for safety and security as presented in the library training sessions.

   **As Needed** G. Other tasks as assigned per classification.
<table>
<thead>
<tr>
<th>Selection Import.</th>
<th>SKILLS AND KNOWLEDGE</th>
<th>Funct./Task/</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Ability to work well in a team environment.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Strong dedication to quality customer service.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Ability to develop and maintain excellent interpersonal relations with end-users at all locations.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of data and telecommunications industry standards and UCSD Library implementation.</td>
<td>1,3-4</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of digital and analog electronic theory.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Ability to operate electronic test equipment (e.g., multimeters and time domain reflectometer).</td>
<td>1,3</td>
</tr>
<tr>
<td>R</td>
<td>Analytical skill in troubleshooting and diagnosing problems with equipment and ability to take appropriate action.</td>
<td>1,3-4</td>
</tr>
<tr>
<td>R</td>
<td>Skill in the use of a variety of small and specialized hand tools.</td>
<td>1,3</td>
</tr>
<tr>
<td>R</td>
<td>Effective written and oral communication.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Ability to learn and effectively assimilate and apply new technical information.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of quality principles and ability to apply the techniques.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Ability to communicate with individuals and groups.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Ability to maintain regular attendance and be dependable.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of campus and library networks to assist users and troubleshoot the Library segments.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of campus and library policies, procedures, organization and structure.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge and skill in the use of Innopac, Novell, terminal servers, and an ethernet TCP/IP network sufficient to monitor the systems and do basic troubleshooting.</td>
<td>1-4</td>
</tr>
<tr>
<td>R</td>
<td>General knowledge of library preservation principles.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge and skill in the use of Dos, Windows, Novell Netware, and Apple operating systems sufficient to use and do basic troubleshooting.</td>
<td>1-5</td>
</tr>
<tr>
<td>R</td>
<td>Ability to read blueprints and CAD drawings and determine</td>
<td>1,3-4</td>
</tr>
</tbody>
</table>
location of network and equipment based on those drawings.

R Ability to read schematic drawings to troubleshoot electronic equipment. 1,3-4

R Ability to organize facilities and staff to accomplish tasks and meet deadlines. 1,3

R Ability to work under pressure. 1,3
POSITION DESCRIPTION

PERSONNEL DEPARTMENT USE ONLY
Approved Payroll Title:
Personnel Program : AFSCM Eff. Date:
EDUI Designation : CX

DEPARTMENT REQUEST FOR:
Proposed Title:
Date Received:

EMPLOYEE
Name :
Payroll Title: DATA PROCESSING PRODUCTION COORDINATOR
Telephone : 4-1284 Mail Code: 0175T

SUPERVISOR
Name :
Payroll Title: Computing Resources Manager (A&PS6)
Telephone : 4-1287 Mail Code: 0175T

POSITION INFORMATION
Work Location : CENTRAL LIBRARY SYSTEMS
Appointment Type : CAREER/CASUAL End Date of Appointment: INDEF
Percentage of Time: 50/50 Conflict of Interest Designation: NO
Schedule :

TYPE OF SUPERVISION RECEIVED
Direction

SUPERVISION
None

DUTIES SUMMARY
Monitors library computer systems and equipment (e.g., Innopac, Novell, terminal servers and general network activity). Monitors and works on the Help Desk. Enters requests for help received through email or via the telephone into the Help Desk Database; gathers additional information as needed; troubleshoots and solves or assigns calls/problems as appropriate; sends confirmations of calls received and confirmation of jobs completed to department contacts. Programs and maintains programming code for Location-ID Equipment Inventory Database; collects and maintains inventory and configuration data on all automation equipment for the Library. Produces lists, disk files, and forms of records for various Library users and transmission via FTP to outside agencies. Loads and converts records received on tape/diskettes from various sources. Maintains current knowledge of the systems, PCs, Novell network, and network facilities to provide user assistance.

SPECIAL CONDITIONS OF EMPLOYMENT
Provides after hour on-call emergency support by telephone as required. Works in machine room when necessary. Subject to occasional overtime and call back.
<table>
<thead>
<tr>
<th>Freq.</th>
<th>Function/Task</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HELP DESK FUNCTIONS (30%)</td>
</tr>
<tr>
<td></td>
<td>Performs functions of help desk request assimilation, problem resolution, call assignment, and help desk communication. Helps to coordinate help desk functions and database maintenance.</td>
</tr>
<tr>
<td>D</td>
<td>A. Takes incoming problem requests associated with software, computers and peripheral devices, including printers, modems, CD-ROM, and input devices; Library systems (e.g., Innopac, Novell); and the network facilities. Enters information from request into the Help Desk database for approximately 300 staff using 350 PCs and Macintoshes, 250 terminals, and 400 printers.</td>
</tr>
<tr>
<td>D</td>
<td>B. Initiates first level problem resolution. Clears busy records and blocked processes, resets ports, checks for incorrect system setups and resets to correct settings, checks for damaged system files, checks for loose or improper hardware connections, and checks for common network errors. Analyzes and resolves problems with both bibliographic systems and library systems. If problem resolution is still not complete, assigns calls to appropriate technical staff for call completion.</td>
</tr>
<tr>
<td>D</td>
<td>C. Using established quality service techniques, responds to assigned service calls from the Help Desk database to ensure customer requests are met as required by priority. Makes regular updates to the Help Desk database to reflect current status of various calls.</td>
</tr>
<tr>
<td>D</td>
<td>D. Sends confirmations of calls entered and those completed to departmental contacts and resolves problems as needed.</td>
</tr>
<tr>
<td></td>
<td>COMPUTER OPERATIONS FUNCTIONS (25%)</td>
</tr>
<tr>
<td></td>
<td>Helps with coordination and performance of daily operations of, as well as computer system maintenance of, the library bibliographic system.</td>
</tr>
<tr>
<td>D</td>
<td>A. Assists in the management and coordination of the daily operations of Innopac, the UCSD online catalog system.</td>
</tr>
</tbody>
</table>
B. Monitors the Innopac system, which resides on two UNIX-based machines and is accessed over an ethernet TCP/IP network, to ensure continuous and smooth operation and uniform access.

C. Responsible for coordinating, updating and generating reports using a FoxPro database which contains all Innopac user access authorization records.

D. Performs operations maintenance (backup, logging, running system checks, purging records, etc) to maintain needed records for troubleshooting and meeting UCSD Audit standards.

E. Assists with hardware and software maintenance and repair with Library Systems technical support staff, library staff and the system vendor (Innovative Interfaces, Inc.).

F. Loads records received on tape into the system (e.g., serials invoice tapes, cataloged bibliographic records, authority records). Converts records as needed.

G. Transmits files using FTP (file transfer protocol) to DLA (monographs and serials) to update Melvyl. Communicates with DLA to resolve any problems arising with the transfer.

H. Downloads information from Innopac; inputs data into statistical spread sheet (SC4) and generates reports calculating system usage.

I. Using a UNIX-based machine monitors status of terminal servers and PC Hubs (as well as various other network devices) which support eight library branches as well as central library. Troubleshoots and resolves or refers network problems as appropriate.

J. Responsible for maintaining IP address-to-Ethernet address (BOOTP) tables for all library networked equipment across multiple IP subnets.
3. INVENTORY CONTROL FUNCTIONS (15%)
Responsible for database maintenance as well as report generation from library's automation equipment inventory program. Helps form policy for inventory control and improvements in current inventory process.

A. Maintains LOCATION ID (LOC-ID) Database designed to track physical location, local configuration, network configuration and specific data about all automation equipment throughout the library for inventory and management purposes. Responsible for maintaining database integrity.

B. Collects and maintains inventory data for the LOC-ID Database. Labels all library automation equipment with LOC-ID and Device ID barcode labels (generated from LOC-ID Database code). Updates database to indicate all movement of library automation equipment.

C. Writes, develops and produces general and specific inventory and statistical reports from LOC-ID Database.

D. Helps form policy and procedure for maintenance, use and training for use of LOC-ID databases and for the general library automation equipment inventory process.

4. TECHNICAL KNOWLEDGE AND USER ASSISTANCE (10%)
Maintain's working knowledge of various library systems, network communications, software packages and hardware devices as well as strong interpersonal skills to provide first-level troubleshooting, problem solving and user support.

A. Maintains current knowledge of bibliographic systems' general uses and hardware configurations in order to provide user and vendor assistance and direction in regard to the operation and maintenance of those systems.

B. Maintains current knowledge of PC software set-ups and uses as well as hardware configurations for use in performing responsibilities and for providing user assistance and support.
C. Maintains current knowledge required by job to be able to troubleshoot problems users are experiencing related to the Library's Novell LAN, ethernet TCP/IP network and Innopac bibliographic systems for troubleshooting or referring problems.

5. COMPUTER PRODUCT PREPARATION AND DISTRIBUTION (10%)
Trained in efficient use of computer software, hardware and printing devices for production and distribution of various reports and other computer products.

A. Generates statistical reports from Help Desk database, LOC-ID database, SC4 and Innopac.

B. Produces and distributes or oversees the production and distribution of various Innopac reports and products (e.g., purchase orders, order claims, new headings list and circulation notices).

6. OTHER RELATED FUNCTIONS (10%)

A. Creates and distributes the monthly calendar of Innopac scheduled tasks and projects using PC-based software.

B. Develops and maintains multi-user programming code for the LOC-ID database and the Innopac Users Access database programs written/compiled in FoxPro2.

C. Participates in the Library Systems Quality Management methods and techniques.

D. Handles all library materials according to accepted library preservation practices as presented in the library training sessions.

E. Abides by rules for safety and security as presented in the library training sessions.

F. Other tasks as assigned per classification.
<table>
<thead>
<tr>
<th>Selection Import.</th>
<th>SKILLS AND KNOWLEDGE</th>
<th>Funct./Task#</th>
</tr>
</thead>
<tbody>
<tr>
<td>R</td>
<td>Ability to work well in a team environment.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>Strong dedication to quality customer service.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>High self-motivation and self-discipline. Ability to work independently and meet deadlines in an environment of multiple and changing priorities.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>Ability to develop and maintain excellent interpersonal relations with end-users at all locations.</td>
<td>1-6</td>
</tr>
<tr>
<td>A</td>
<td>Knowledge of quality principles and ability to apply the techniques.</td>
<td>1-4</td>
</tr>
<tr>
<td>R</td>
<td>Ability to communicate with individuals and with groups.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>Ability to maintain regular attendance and to be dependable.</td>
<td>1-2</td>
</tr>
<tr>
<td>R</td>
<td>Ability to maintain confidentiality.</td>
<td>1-2</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge and skill in the use of microcomputers and various software packages for word processing, database management, spreadsheets, communications and others as needed sufficient for use and basic troubleshooting.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge and understanding of the basic principles of computer programming, boolean logic and database maintenance.</td>
<td>1-4, 6</td>
</tr>
<tr>
<td>R</td>
<td>Basic knowledge of the various components and configurations of common microcomputers, peripheral devices, printers and network equipment.</td>
<td>1-4</td>
</tr>
<tr>
<td>R</td>
<td>Skill in recognizing system error conditions and applying logic and experience in rectifying them.</td>
<td>1-2, 4-5</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of campus and library networks to assist users and troubleshoot.</td>
<td>1-2, 4-5</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of campus and library policies, procedures, organization and structure.</td>
<td>1-6</td>
</tr>
<tr>
<td>R</td>
<td>Knowledge and skill in the use of Innopac, Novell, terminal servers, and an ethernet TCP/IP network sufficient to monitor the systems and do basic troubleshooting.</td>
<td>1-2, 4</td>
</tr>
<tr>
<td>R</td>
<td>General knowledge of library rules for safety and security.</td>
<td>1-6</td>
</tr>
</tbody>
</table>
R General knowledge of library preservation principles. 1-6
R Knowledge of general troubleshooting techniques. 1-5
R Ability to assimilate information from various symptomatic problems and to logically deduce probable problem causes. 1-6
R Understanding of physical and logical layout of magnetic tapes. 1-4
R Familiarity with FTP (file transfer protocol) sufficient to send and receive files. 1-2
R Knowledge and skill in the use of Dos, Windows, Novell Netware, and Unix sufficient to use and do basic troubleshooting. 1-6
POSITION DESCRIPTION

DEPARTMENT REQUEST FOR:
Proposed Title: Electronics Technician Trainee
Date Received:

EMPLOYEE
Name:
Payroll Title: L.A. III
Telephone: 4-6371 Mail Code: 0175T

SUPERVISOR
Name:
Payroll Title: Computing Resources Manager (A&PS6)
Telephone: 4-1287 Mail Code: 0175T

POSITION INFORMATION
Work Location: CENTRAL LIBRARY SYSTEMS
Appointment Type: CAREER End Date of Appointment: INDEF
Percentage of Time: 100 Conflict of Interest Designation: NO

TYPE OF SUPERVISION RECEIVED
Close Supervision

SUPERVISION
None

DUTIES SUMMARY
Under close supervision installs, troubleshoots, and repairs a wide range of Library automation equipment. Makes recommendations for replacement or outside vendor repair as appropriate. Assists with maintaining the CAD drawings of the library facilities and network to insure the ability to add new equipment and track problems with as little disruption to other users as possible. Assists with the inventory control of automated equipment. Provides technical support and instruction to library staff as needed for them to access the resources they need to do their work.

SPECIAL CONDITIONS OF EMPLOYMENT
May be required to work occasional evenings, weekends, and overtime.
<table>
<thead>
<tr>
<th>Freq.</th>
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</tr>
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<tr>
<td></td>
<td>The Systems Dept. provides support for over 350 networked PCs and Macintoshes and 250 terminals plus a wide range of peripheral equipment. Software supported includes WordPerfect, FoxPro, cc:Mail and other packages available on a Novell network. Systems staff must understand the hardware and software which make it possible for Library staff to access local, national, and international resources across the campus network and through the Internet.</td>
</tr>
</tbody>
</table>

### 1. COMPUTER HARDWARE INSTALLATION AND REPAIR (50%)

| D | A. Diagnoses and troubleshoots computer hardware and software malfunctions. |
| D | B. Coordinates with library staff to facilitate hardware repairs. |
| D | C. Repairs equipment on site or in repair facility, as required. |
| W | D. Installs new microcomputer and peripheral hardware and software within Central and branch libraries. |
| M | E. Builds specialized cables to connect equipment as needed by customer. |
| W | F. Re-configures existing hardware and software as required to meet changing requirements. |
| D | G. Monitors, updates, and maintains Help Desk database regarding jobs assigned as directed by Library Systems policy. |

### 2. INVENTORY CONTROL AND MANAGEMENT (30%)

| D | A. Maintains records of description and location of automation equipment. |
| W | B. Assigns and updates location IDs using the LOC ID database to provide technical information for troubleshooting and inventory control to meet UCSD audit standards. |
| M | C. Maintains CAD drawings that show location IDs corresponding to physical location. |
| Q | D. Produces departmental inventories using LOC ID database information at regular intervals to meet Library and UCSD audit standards. |

### 3. TECHNICAL SUPPORT (10%)

| D | A. Instructs and advises library staff, at all levels, in the correct use and maintenance of automated equipment. |
| M | B. Provides technical training on proper use and care of specific hardware and peripherals. |
4. LIBRARY SYSTEMS INSTALLATION AND OPERATION (5%)

M A. Configures and installs data communications devices including ports and cabling.

M B. Builds cables and connectors to meet specialized requirements of the Library's network environment.

M C. Builds cable paths to provide phone service from telecommunications demark to workstation.

5. OTHER RELATED FUNCTIONS (5%)

W A. Maintains current knowledge of new computer and communications hardware and software by reading books, magazines, and journal and interaction with vendor contacts.

W B. Assists Help Desk staff with recording and scheduling responses to Help Desk requests.

W C. Participates in the Library Systems Quality Management methods and techniques.

D D. Handles all library materials according to accepted library preservation practices as presented in the library training sessions.

D E. Abides by rules for safety and security as presented in the library training sessions.

As F. Other tasks as assigned per classification.
**SKILLS AND KNOWLEDGE**

<table>
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<tr>
<td>R</td>
<td>Ability to develop and maintain excellent interpersonal relations with end-users at all locations.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of data and telecommunications industry standards and UCSD Library implementation.</td>
<td>1,3-4</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of digital and analog electronic theory.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Ability to operate electronic test equipment (i.e., multimeters, and oscilloscope).</td>
<td>1,3</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Analytical skill in troubleshooting and diagnosing problems with equipment and ability to take appropriate action.</td>
<td>1,3-4</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Skill in the use of a variety of small and specialized hand tools.</td>
<td>1,3</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Effective written and oral communication.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Ability to learn and effectively assimilate and apply new technical information.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of quality principles and ability to apply the techniques.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Ability to communicate with individuals and groups.</td>
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<td>R</td>
<td>Ability to maintain regular attendance and be dependable.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Knowledge of campus and library networks to assist users and troubleshoot the Librar segments.</td>
<td>1-3</td>
<td></td>
</tr>
<tr>
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<td>Knowledge of campus and library policies, procedures, organization and structure.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Knowledge and skill in the use of Innopac, Novell, terminal servers, and an ethernet TCP/IP network sufficient to monitor the systems and do basic troubleshooting.</td>
<td>1-4</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>General knowledge of library preservation principles.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Knowledge and skill in the use of Dos, Windows, Novell Netware, and Apple operating systems sufficient to use and do basic troubleshooting.</td>
<td>1-5</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Ability to read blueprint and CAD drawings and determine location of network and equipment based on those drawings.</td>
<td>1,3-4</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Ability to read schematic drawings to troubleshoot electronic equipment.</td>
<td>1,3-4</td>
<td></td>
</tr>
</tbody>
</table>
UNIVERSITY OF COLORADO AT BOULDER

POSITION DESCRIPTION

SYSTEMS LIBRARIAN

JOB SUMMARY: The Systems Librarian is a tenure-track faculty position reporting to the Assistant Director for Administration. The Systems Librarian works closely with the Libraries Administrative Cabinet and Council in coordinating, overseeing and developing all aspects of library automation and telecommunications. The Systems Librarian serves as a liaison with various agencies for testing, implementation, and ongoing operations of automated systems. These include the Colorado Alliance of Research Libraries (CARL), the Bibliographical Center for Research (BCR), OCLC, and the campus Computing and Network Services and Telecommunication Services.

JOB RESPONSIBILITIES:

1. Provides leadership and direction in the development, implementation, and utilization of automated library systems in conjunction with the Libraries Administrative Cabinet and Council.

2. Serves as liaison with CARL for testing, implementation, and ongoing operations of CARL subsystems and products used by the CU-Boulder Libraries. The Libraries are a founding member of this alliance which has developed an Online Public Access Catalog (PAC) and Circulation System using CARL software and shared Tandem computers. Various subsystems and capabilities are under development, including authority control, serials, and acquisitions.

3. Provides technical support for microcomputer hardware and software, library telecommunications systems, and local area networks.

4. Serves as the Libraries resource person to provide up-to-date information on library automation, computer hardware and software, and trends in the field.

5. Works in close coordination with all library departments and outside agencies to avoid duplication of effort and to keep appropriate people up-to-date on computer related activities and developments.

6. Works with and serves as a liaison to the campus Computing
and Network Services and Telecommunications Services, the Bibliographical Center for Research, OCLC, RLIN, vendors, publishers, and other national telecommunication networks. In cooperation with these groups, develops interconnections between campus library systems, CARL applications, and national systems.

7. In conjunction with pertinent departments and divisions of the Libraries, writes and maintains documentation and training materials for all automated library systems.

8. Trains, supervises, assigns, and reviews work of staff responsible for maintaining and troubleshooting for equipment and software, including CARL terminals and multiplexors, microcomputers, OCLC terminals, telecommunicating equipment, etc.


10. Performs other related duties as assigned.

TENURE AND PROMOTION RESPONSIBILITIES: Develops and maintains a consistent level of scholarly, professional and community service, communication and activity through such avenues as:

1. professional memberships and conference attendance;
2. service to the institution, the profession, and/or the community through serving on committees and boards, in elective office, etc.;
3. active inquiry or research leading to publication; other publication activity, including editing, reviewing, refereeing, etc.;
4. presentation of papers, participation in panel discussions;
5. teaching;
6. participation in appropriate continuing education opportunities.
Harvard University Library
Office for Information Systems
Position: Systems Librarian

The Harvard University Library is actively involved in the development and use of large-scale computer systems and is seeking a qualified and energetic person to join its Office for Information Systems. This position involves the full range of system development and maintenance tasks including analysis, functional design and specification, programming, testing and debugging, and implementation. HUL is a large, complex, and dynamic organization that expects to support an ever growing and more diverse set of automated services.

Requirements: Master's degree in Library or Information Science or equivalent experience; familiarity with automated library applications; demonstrated aptitude for computer programming; excellent oral and written communication skills. The ideal candidate will also be familiar with MARC formats, IBM mainframe operating systems and languages, particularly PL/1 and BAL, and have experience in research libraries. Familiarity with a broad range of computing platforms (e.g., UNIX, DOS, Windows, Macintosh) and other computing languages and protocols (e.g., C, TCP/IP) is highly desirable.
MICROCOMPUTER AND DESKTOP APPLICATIONS SPECIALIST

The Office for Information Systems provides technical and user support for HOLLIS, the large-scale integrated library management system used throughout the library system at Harvard. The Networking and Desktop Systems group is responsible for supporting access to HOLLIS and other library information systems both through a large dedicated terminal network and by means of network-attached microcomputers. The group also supports administrative desktop computing within the Office for Information Systems and other Harvard University Library units.

Reporting to the manager of the Networking and Desktop Systems Group and working in close cooperation with other group members, the primary responsibilities of the Microcomputer and Desktop Applications Specialist will be to 1) provide support for software setup, configuration and utilization on the desktop machines in the Harvard University Library and 2) provide support for microcomputer client communications software (TN3270, telnet, Gopher, Mosaic, together with vendor-supplied clients) used throughout the Harvard University Libraries for information delivery and management. 3) Along with other members of the NDS group, support the HOLLIS terminal network. Other areas of responsibility will include: configuring and installing new microcomputers on the HUL LAN; serving as backup Novell LAN administrator; writing and organizing documentation; developing and supporting record-keeping databases; selection and evaluation of new software packages; advising OIS and HUL management on new uses of desktop computing.

Requirements: College degree; 2-3 years relevant job experience; expertise in microcomputer (both PC and MAC) support functions acquired through job experience; experience in a production Novell LAN environment; solid understanding of basic data communications; excellent interpersonal and user-support skills; very strong oral and written communication skills. Strong skills in a range of microcomputer software packages, preferably including a number of the following: WordPerfect, Paradox and/or DBASE IV, LOTUS 123, Freelance, FTP Software or similar PC TCP/IP software, MSWORD, EXCEL, Filemaker. Other desirable skills/experience include: familiarity with wide-area networking (Internet and such tools as gopher, Mosaic, Netnews readers, etc.); an understanding of operating desktop-based mail packages; comfortable working with microcomputer hardware (installing cards, adding memory). The successful candidate will have a proven record showing the ability to work well under pressure in a very busy environment together with a high degree of flexibility and willingness to perform a wide-range of tasks in the course of his/her day-to-day work. Familiarity with the computing and/or library environment at Harvard a strong plus.

JEST COPY AVAILABLE
I. JOB SUMMARY

Briefly describe the basic purpose of the position.

To provide the library with installation, maintenance and upgrading of computer hardware and software, installation, maintenance, and management of network hardware and software, recommendations for the purchase of new computer hardware and software. To provide consultation and expertise to all departments and divisions of the library in the previously mentioned areas.
II. DUTIES AND RESPONSIBILITIES

List and explain the essential duties and responsibilities of the position starting with the most important and working through to the least important. Be complete. Indicate the average percentage of time spent performing each separate job duty. Consider work performed over a 12-month period to account for cyclical variations. The percentages should total 100%. Please describe only those duties that occupy at least 5% of the incumbent's time. Be specific and use action verbs in describing your duties: express in quantitative terms when possible. (Attach additional sheets if necessary)

<table>
<thead>
<tr>
<th>% of Time</th>
<th>Duties and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Provide installation, maintenance and upgrade support for various computer platforms used within the library, including DOS compatibles, Macintosches, and UNIX workstations. This includes the process of upgrading hardware and software, deciding whether hardware needs to be repaired or replaced, and resolving problems encountered with various software packages.</td>
</tr>
<tr>
<td>25</td>
<td>Provide network support for the various computer platforms used within the library, including DOS compatibles, Macintosches, and UNIX workstations. This requires installing, operating, maintaining, and managing network systems such as Novell Netware, Appletalk, and UNIX Network File System (NFS). Provide installation and configuration of ethernet, token ring, and other adapters, network file servers, networked CD-ROM drives, cabling, and the appropriate software accompanying each network type.</td>
</tr>
<tr>
<td>15</td>
<td>Consult with library departments and divisions on the purchase of new computer hardware or software for the DOS compatible, Macintosh, and UNIX workstation platforms. This requires that the incumbent be in communication with various library groups and individuals about computer hardware and software needs and requirements, consult with computer hardware and software vendors as needed, and make recommendations on what products to purchase and where they may be purchased.</td>
</tr>
<tr>
<td>10</td>
<td>In coordination with the Computer Instruction Librarian provide instructional help to library staff on computer hardware, software, and network systems.</td>
</tr>
<tr>
<td>10</td>
<td>In coordination with the Lead Systems Analyst provide programming assistance for various types of canned software packages on DOS compatibles, Macintosches, and UNIX workstations.</td>
</tr>
<tr>
<td>05</td>
<td>Provide consultation for funding proposals of computer hardware and software. This includes providing up-to-date technical and cost information about computer hardware and software for required proposals.</td>
</tr>
</tbody>
</table>

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Consult with groups or individuals within the university and outside the university on new implementations of computer hardware and software. This requires that the incumbent stay apprised of what other computer installations are doing with computer hardware and software.

Maintain awareness of new developments and trends in the area of responsibility by reading and consulting computer related journals and books.

Total of all percentages should equal 100%.
III. KNOWLEDGE & EXPERIENCE

A. KNOWLEDGE

1. List specifically the degrees, technical training, or post-high school course work required to qualify for this position and justify how the level of education or training is essential to the performance of the duties and responsibilities.

   B.S. degree in Computer Science or equivalent information technology program. The person in this position needs to be able to associate computer related theory, concepts and knowledge with practical experience.

2. What other knowledge, skills, or abilities are required in order to carry out the duties of this position?

   The incumbent must be able to communicate effectively on many different levels with all the individuals and groups that will be encountered in this position. The incumbent must be able to manage a large number of concurrent tasks on a daily basis and possess the mechanical skills that will enable him or her to provide maintenance on different types of computer hardware. The incumbent must be able to write instructions for hardware or software use, various types of reports and grant proposals. The incumbent must be able to give instructional help to individuals and groups.

3. What licenses or certifications (e.g., pharmacy license or accounting CPA), if any, are required for the position?

   None.

B. EXPERIENCE

1. Please describe the type and least amount of work experience required, if any, for a person coming into this position and justify how the experience is essential to the performance of the duties and responsibilities.

<table>
<thead>
<tr>
<th>Type of Experience Needed</th>
<th>Amount of Experience Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs to have a wide range of computer related experience on DOS compatibles, including</td>
<td>Three years of computer related</td>
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<tr>
<td>the installation, maintenance, and software support.</td>
<td>experience.</td>
</tr>
<tr>
<td>Needs to have experience with the management of a Novell Netware network system,</td>
<td></td>
</tr>
<tr>
<td>including installation, maintenance, and software support.</td>
<td></td>
</tr>
</tbody>
</table>

2. After being hired or moved into this position, how much on-the-job training is required to learn all the major duties and be able to perform them well?

   Depending upon the level of related experience and knowledge, a new person would need six months to a year to be able to function well within the job requirements.
IV. COMPLEXITY

1. Describe several of the more difficult and complex problems or projects that have been handled by this position in the past twelve months. For new positions, describe the types of problems or projects anticipated.

The installation and maintenance of two Novell Netware 3.11 servers (one with three CD-ROM towers) and a Novell Asynchronous Communications Server (NACS) required a considerable amount of associative knowledge about microcomputer based hardware and software and networking hardware and software. This entailed setting up the Novell server hardware and linking it to the building ethernet. Then the Novell server software had to be installed and configured. User IDs and passwords had to be established and application software had to be installed and configured for a networked environment. The network with the CD-ROM drives required the installation of SCSI adapter boards, the installation of CD drives in cabinets, the installation of a Netware Loadable Module (NLM) SCSI Express to manage the drives, and the installation of application software that uses the drives.

The Novell Asynchronous Communications Server required the installation and testing of Digiboard asynchronous ports, the installation of NACS software, linking the NACS server to the asynchronous of an OCLC communications controller, and coordinating the testing of connections with Technical Services staff and OCLC systems staff in Columbus, Ohio.

V. INNOVATION

1. Describe a part of the work that illustrates the creative or innovative nature of the job or the degree to which resourcefulness, ingenuity and creative thinking is required to develop new or improved methods, ideas, procedures or techniques.

The position demands innovation and resourcefulness on a daily basis. When the CD-ROM towers were set up, the manufacturer of the cabinet was prepared to sell an expensive kit of brackets for the mounting of the drives. However, the then incumbent skillfully redeployed some existing hard drive brackets at no additional cost to the library.

The incumbent might be in the middle of a hardware installation and be called upon to respond to troubleshoot a problematic communications connection. How to balance work priorities and when to call upon support staff are continuing themes in the work experience of this position.

In an informal encounter in a hallway the incumbent might be called upon to explain the advantages of an ethernet over an ISN connection to a department head that is not very computer literate. This discussion might affect the future of the department and its priorities for expending its budget. Being able to explain technical issues in a clear, concise manner is an essential skill for this position.
VI. IMPACT ON INSTITUTIONAL MISSION

A. SCOPE

1. Describe the positive impact this position has on the operations within its specific work area and/or the University when it is being performed well.

   The maintenance of the file servers and individual workstations is of utmost importance to the ongoing operational activities of the library and its clientele. Approximately three dozen public workstations and over seventy staff workstations are directly or indirectly dependent upon this position. In addition, the incumbent is responsible for the installation and maintenance of all the system software and most of the application software on the three servers.

2. Describe the types of negative consequences for the work area and/or for the University that might result from an error made by someone in the position who did not possess good job knowledge or use sound judgment.

   A lack of knowledge or judgment could result in damaging or destroying the security and authorization tables on the file servers, thereby rendering the networks unavailable to the staff and public users. Since both are production systems this would have a strong impact on the ability of the library to conduct its daily operations.

3. Express in monetary or quantitative terms the level of responsibility involved in this position. (i.e., directs research budget of $300,000; schedules 100 alumni meetings/year; advises 30 students/week)

   Responsible for the daily operation of over $250,000 worth of computer equipment serving over one hundred library staff and several thousand library patrons per day.

B. FREEDOM OF ACTION

1. Describe the type of guidance and review the supervisor gives the incumbent in this job and how often (e.g., daily, weekly) that guidance and review occurs.

   Type of Guidance and Review
   
   Review status of projects; identify problems and suggest ways of resolving them.

   How Often?
   
   On a weekly or biweekly basis.

   Review divisional plans and objectives and identify priority of projects.

   Quarterly.

2. Describe the departmental policies and procedures, professional standards, or formal regulations which guide the actions in this position (e.g., policies or procedures for handling an overdue account or dealing with a student's complaint).

   The activities of the library as a whole are governed by professional guidelines of the American Library Association; the Automated Systems Division is governed by the objectives and procedures identified in the library's Implementation & Planning Manual and the library's strategic plan.
VII. ORGANIZATION CHART

Illustrate supervision given/received by drawing a chart of the organizational structure, including appropriate pay grades.

\[\text{Dean of Library Services} \]

\[\text{Asst. Dir. Automated Systems} \]

\[\text{SSS IV (PG15)} \]

\[\text{SSS III* (proposed)} \]

\[\text{Lead Systems Analyst (Professor)} \]

\[\text{Training Librarian (Assoc. Prof.)} \]

\[\text{SSS I (PG12)} \]

\[\text{Research Assistant} \]

\[\text{SSS = System Support Specialist} \]
VIII. INTERNAL INTERACTIONS

1. Describe the type of interaction the incumbent has with other people employed by the University. Consider the nature and level of contact encountered on a regular, recurring and essential basis during operations and whether the contacts involve furnishing or obtaining information, influencing others or negotiating.

Within the library the incumbent communicates on a daily basis with library administrators, faculty, P&S staff, merit staff, and student employees. This includes discussions about planning hardware purchases, supplying information on request, negotiating installation activities, interpreting users' needs, and troubleshooting technical problems.

Outside the library the incumbent communicates on a weekly basis with colleagues in the Computation Center and Telecommunications Office and with university faculty and students. This includes researching technical information and responding to requests for access to public library systems.

IX. EXTERNAL INTERACTIONS

1. With whom does the position regularly communicate outside the University in order to perform the duties (e.g., students, suppliers, governmental agencies, product representatives)? What is the purpose of discussion and how often does it occur (e.g., daily, weekly)?

<table>
<thead>
<tr>
<th>Who</th>
<th>Purpose</th>
<th>How Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer hardware and software vendors</td>
<td>Obtain specifications and/or cost information about prospective hardware or software relevant to library needs.</td>
<td>On a daily basis.</td>
</tr>
<tr>
<td>Computer programmers or network managers at other universities</td>
<td>To compare technical needs and solutions; to evaluate products based on actual usage</td>
<td>On a weekly basis.</td>
</tr>
</tbody>
</table>
X. LEADERSHIP RESPONSIBILITY

1. Indicate the number of employees directly and indirectly supervised by this position:

<table>
<thead>
<tr>
<th>DIRECT SUPERVISION</th>
<th>INDIRECT SUPERVISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>P&amp;S</td>
<td>.6 System Support Specialist I</td>
</tr>
<tr>
<td>Merit</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>.25 Research Assistant</td>
</tr>
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</table>

2. If not direct/indirect supervision of staff, describe the type of responsibility the position has for directing the flow of activities related to a project, task force, committee or team of staff engaged in an essential activity of a time-limited, regular and recurring basis. Also indicate titles of the employees the incumbent supervises and/or the projects or functions for which the incumbent manages.

**Type of Leadership Responsibility**
- Provide guidance in selection of computer hardware and software with respect to library guidelines, tasks to be accomplished, and budgetary constraints.
- Inform staff of new technologies and show how they can be applied in the workplace.
- Provide training and workshops in consultation with Training Librarian.

**Title(s) Supervised/Project(s) Managed**
- Manages local area networks and both staff and public workstations for entire library; manages installation and upgrades to workstation and network software for all library staff and users.
  - Title: All library staff.
  - Project: All library staff.
XI. PHYSICAL CONDITIONS

1. Describe the working conditions of your job, including any unpleasant features like heat, cold, exposure to chemical substances, etc. Take into consideration lighting, temperature extremes, noise pollution, air pollution, work hazards, and the possibility of disease. Describe the amount of physical dexterity of hand operations or other coordinated motions which the job regularly requires, e.g., eye/hand coordination in operating a keyboard or manual dexterity and exactness in the use of hand instruments.

Work takes place in a temperature and humidity controlled building under fluorescent lights. The incumbent works with video display monitors and microcomputers almost all day. The incumbent needs to be able to lift and move computer monitors and system units, printers, and CD-ROM towers up to fifty pounds on a daily basis.

The incumbent needs good vision to read manuals and computer screens, eye and hand coordination to operate a computer keyboard, and dexterity in opening computer equipment and installing components.

XII. POSITION CHANGES STATEMENTS

If this is a request for reclassification, please indicate changes, deletions, and/or additions to the duties and responsibilities.

This position is being reclassified as a P&S position from a faculty position because of the increasingly technical nature of the responsibilities.
XIII. EMPLOYEE GENERAL COMMENTS

Because no single questionnaire can cover every part of a job, can you think of any other information which would be important in understanding your job? If so, please give us your comments below.

The position is currently vacant.

Incumbent Signature

Title

Date

XIV. SUPERVISOR COMMENT SECTION

This portion of the questionnaire is to be completed by the employee's immediate supervisor. As a supervisor, it is important that you review this questionnaire and note any comments you may have next to the employee's responses, preferably in red ink. The space provided below is for general remarks you may have. Remember, this questionnaire is intended solely for the purpose of accurately describing the position and not the person or his/her performance.

This position description was written by the supervisor (Assistant Director for Automated Systems).

Supervisor

Jerry V. Caswell

Assistant Director for Automated Systems

Date

5-9-94

XV. MANAGEMENT COMMENT SECTION

This portion of the questionnaire is reserved for comments by the second-level supervisor and other management staff members, where applicable, who indirectly supervise this position through other supervisors. As the next level of management over this position, it is important that you review this questionnaire and note any comments you may have next to the employee's responses, preferably in blue ink. The space provided below is for general remarks you may have. Remember, this questionnaire is intended solely for the purpose of accurately describing the position and not the person or his/her performance.

This position description was reviewed by the Dean of Library Services and the Library's Personnel Officer.

Department Head

Title

Date

Nancy L. Eaton

Dean of Library Services

5-9-94

Dean/Director

Title

Date

Vice President

Nancy L. Eaton

Dean of Library Services

5-9-94
UNIVERSITY OF MARYLAND LIBRARIES - COLLEGE PARK
POSITION DESCRIPTION FORM
ASSOCIATE STAFF

Date Prepared: December 9, 1994
Prepared By: R.L. Larsen

Position Rank: Librarian I
Specific Position Title: Systems Librarian
Reports To: Irma Dillon

NATURE OF WORK:
The Systems Librarian (1) provides direct professional support for the maintenance, development, and operation of the CARL applications software supporting library automation in 13 libraries on 11 campuses throughout the University of Maryland System. They work with a team of systems librarians, programmers, technicians, and computer systems operators.

POSITION REQUIREMENTS:

EDUCATION:
Master's degree in library science from a graduate program accredited by the American Library Association. Course work in computer science or information science is highly preferred.

EXPERIENCE:
At least three years of relevant experience that conveys a broad, yet strong understanding of library automation and operations in a medium-to-large academic library setting. Experience working in, and for a networked library consortium environment is preferred. Direct experience working with the CARL System or other large-scale library automation system is desirable.

Candidates should possess demonstrated knowledge and experience in the following areas: serials and acquisitions processing, the role of computing in libraries, and library automation hardware and software. Successful candidates will demonstrate effective interpersonal skills and will display substantial understanding of information technology and library science in a networked academic setting.

Candidates not meeting the minimum experience requirements may be reconsidered at the Associate Librarian II level.
The primary function of these two AL-II positions in the Information Technology Division (ITD) is to provide basic user support for University of Maryland System (UMS) Libraries staff in the operation and use of the UMS Library Information Management System (LIMS). The UMS LIMS has been developed through a contract to CARL Systems, Inc. It supports 13 Libraries on 11 campuses of the UMS. These campuses are distributed across the State of Maryland, and the Libraries range from the University of Maryland at College Park (UMCP), an Association of Research Libraries (ARL) library with 1.9 million items in its database, to University College, the continuing education arm of the university, with 2000 items in its library collection.

The UMS LIMS operates on a Tandem mainframe computer housed in McKeldin Library at UMCP. Data communications are supported by a Statewide intercampus telecommunications network supporting both TCP/IP and X.25 protocols. There are approximately 1,000 PCs and Wyse terminals distributed throughout the network. In addition to the basic UMS Network, end users have access to a variety of remote databases via a dedicated communications line from College Park to CARL Systems in Denver, Colorado utilizing Tandem's proprietary "Expand" communications protocol.

Support for UMS LIMS is provided by the Information Technology Division of the UMCP Libraries. ITD currently has a professional staff of systems librarians supporting applications and providing basic user support, programmers responsible for maintenance and enhancement of LIMS software, and an operations staff responsible for computer operations, network management, and system configuration.

**POSITION REQUIREMENTS:**

**EDUCATION:**

Bachelor's degree in library science from a graduate program accredited by the American Library Association. Course work in computer science or information science is highly preferred.

**EXPERIENCE:**

At least 1 year of relevant experience is required.
Desirable knowledge or experience:

1. Mainframe computing systems;
2. PC hardware or software support;
3. Data communications;
4. User or customer service support;
5. Local area networks (LANs);
6. Integrated library automation systems;
7. At least one major library functional area (e.g., Technical or Public Services);
8. Strong oral and written communication skills.

DESCRIPTION OF DUTIES & RESPONSIBILITIES:

The incumbents report to the Manager of LIMS Applications and are members of the User Services team. This team consists of two Associate Librarian II’s (AL-II’s), the Manager of LIMS Applications (a Librarian II), and the Operations Manager. The two AL-II’s each staff the ITD Help Desk half-time. The service is provided 8:00 am to 5:00 pm weekdays. Presently, the Help Desk receives approximately 1500 calls per year. Approximately half of these calls are resolved during the call. Problems reported involve all aspects of system operation and CARL applications software. In addition to help desk coverage, each incumbent will be assigned responsibility for either maintaining ITD's user support infrastructure or for providing outreach services to UMS Libraries staff users.

The two incumbents' ("A" & "B") nominal responsibilities include:

<table>
<thead>
<tr>
<th>Incumbent</th>
<th>Task</th>
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<tbody>
<tr>
<td>&quot;A&quot;</td>
<td>&quot;B&quot;</td>
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coordinating requests for information and reports requested by UMS staff;

developing and maintaining various electronic mailing lists and call run-sheets used to provide information to staff;

developing and maintaining a LISTSERV for staff interaction with ITD;

In addition, incumbents will participate in the design, development, implementation and operation of an ITD-wide information management system to be based on a Novell Local Area Network.

SUPERVISORY RESPONSIBILITIES:

None

Incumbent’s Signature

"A" or "B"

Date

Supervisor’s Signature

Date

Department Head’s Signature

Date

Associate Director’s Signature

Date
MICHIGAN STATE UNIVERSITY
LIBRARIES

FACULTY POSITION DESCRIPTION

NAME: D. Darren Meahl
TITLE: Head of Systems
SUPERVISOR: Associate Director for Systems and Access Services

FUNCTION: Responsible for the purchase, installation, implementation, maintenance/repair and coordination of all library automation systems (cataloging, circulation, and online public access, CD-ROMs, with the exception of acquisitions), automated administrative support systems, Local Area Networks, and telecommunications.

DUTIES:

1. Supervise systems staff (4 FTE), consisting of Hardware & Telecommunications Repair Technician, Programmer/Analyst, Systems Programmer, and Automated Office Systems Assistant.

2. Coordinate operation and enhancement of the MAGIC system. Evaluate and recommend purchase of extra-cost items; coordinate installation and testing of enhancements; handle questions from library staff about changes/improvements to the MAGIC system. Oversee the customization of the NOTIS system for the MSU Libraries by maintaining program tables and writing specifications for data formatting for information to be loaded into the MAGIC system. Serve as liaison to NOTIS Systems, Inc. Troubleshoot and report software, documentation, and hardware problems, and arrange for and
implement the NSI solution; arrange for on-site training and purchase of documentation.

4. Serve as liaison to the MSU Computer Laboratory. (Computer Lab staff operate the Library's IBM 4381, and maintain the telecommunications equipment connecting the Library to the 4381.) Troubleshoot and report problems with the 4381 and the campus network, and arrange for their solution; participate in hiring of Computer Lab personnel who will operate and maintain the MAGIC system; plan hardware enhancements to the system and coordinate purchase with the Lab; direct the activities of the senior MAGIC Systems Programmer; provide Library input to campus-wide computing decisions.

5. Serve as the primary means of communication to Library staff and Computer Lab staff about the operation of Systems (MAGIC, microcomputing, networks, LANs, electronic mail, equipment purchases & installation.) Serve as the secondary source of technical information about MAGIC software operation for Library staff (with the Automated Office Systems Assistant being the primary resource). Serve as general source of assistance in trouble-shooting and solving telecommunication and hardware problems.

6. Serve as liaison with third party vendors who provide equipment or services that contribute to Systems; arrange contracts and test products and services and arrange for equipment testing.

7. Administer the budget for MAGIC and for staff microcomputer support, preparing budget requests for both categories, and handling the ordering, record-keeping, and accounting for both accounts.

8. Coordinate the installation of products, equipment, etc. received via normal purchase initiatives and via grants.

9. Coordinate the implementation of new automated programs (e.g., the automated student payroll process) among the units involved.
MICHIGAN STATE UNIVERSITY LIBRARIES

POSITION DESCRIPTION

TITLE: Systems Librarian (Librarian II)

SUPERVISOR: Head of Systems

FUNCTION: Responsible for maintaining ALS (NOTIS) Library Management System control tables; for library staff automation training in Internet navigation; also responsible for testing new software releases.

DUTIES:

1. Survey library staff training needs; develop training programs and materials; conduct training classes and seminars.

2. Provide on-demand individual software support after training through personal contact, workshops, group meetings, and by preparing educational/informative materials in order to assure effective use of systems.

3. Provide on-demand assistance in making telecommunication connections.

4. Maintain the MAGIC tables, which customize the NOTIS software for the MSU Libraries.

5. Serve as the source for technical information about MAGIC for the library staff. This includes taking problem reports, trying to replicate the problem, finding solutions to the problems or reporting them to NSI and the MAGIC programmers, and communicating the findings to the Library staff.

6. Test new MAGIC software releases for bugs; report bugs to NOTIS and the MAGIC programmers and follow up on bug resolution.

7. Work with various library groups, providing information on library automation possibilities.

8. Participate in library automation planning and implementation.
THE UNIVERSITY LIBRARIES

DATE: October 1, 1994

POSITION: Assistant Automated Systems Librarian, Assistant Professor, tenure leading

REPORTS TO: Coordinator, Automated Systems

DUTIES: Provide technical support for public and technical service staff use of information technology and electronic resources. This includes:
1) Provide training of staff in the use of electronic information sources.
2) Provide support for the integration of new technologies and new approaches to the delivery of information into library operations.
3) Develop and maintain computer programs that support library applications. This includes maintaining gopher servers(s), writing scripts for library applications and sharing administration for a CD-ROM network.

QUALIFICATIONS: Required: MLS from an ALA-accredited program; two years professional experience in a research, academic, or special library. Flexibility and the ability to work independently and in cooperation with a variety of staff; excellent verbal and written communication skills; excellent analysis, problem resolution, and troubleshooting skills. Preferred: Systems experience in an academic library; experience or education in Ultrix and/or Novell and/or C programming language; degree in computer science or engineering; knowledge of distributed computing, networking and related issues; experience conducting training programs.
JOB TITLE: Head, Library Management Systems

DEPARTMENT: Library Management Systems

REPORTS TO: Assistant University Librarian for Information Technology

JOB FUNCTION: Manages operation and maintenance of the NOTIS library management system. Supervises 2.5 FTE systems analysts and programmers. Coordinates activities with the University Computer Center. Confers with Library staff to analyze procedures and problems related to NOTIS, and designs and writes computer programs to solve those problems. Works with the Network Services and Support and User Support Services departments of the Information Technology Division which provide hardware support and NOTIS training. Performs a leading role in planning for the next generation of library management systems.

DUTIES AND RESPONSIBILITIES:

Supervises work of systems analysts and programmers.

Analyzes problems from a systems and programming point of view and implements a solution which will take maximum advantage of existing software and data processing equipment.

Evaluates and modifies existing systems and programs to increase operating efficiency and to adapt to changing Library needs.

Designs, writes, and tests online and batch computer programs for library systems.

Maintains documentation, including operating instructions, for library systems.

Receives reports of problems with existing library systems, determines the cause of each problem, and makes the necessary corrections.

Provides support of the library management system software outside of business hours.

Maintains security and access controls for the library management system.
QUALIFICATIONS:

Essential:

Bachelor's degree in computer science or the equivalent combination of education and experience.

Thorough knowledge of the principles and techniques of computer system programming and documentation.

Knowledge of the IBM MVS operating system, TSO, and IBM CICS and assembler language.

Excellent oral and written communication skills.

Flexibility to adapt to a rapidly changing computer environment.

Desirable:

Experience with the NOTIS system.

Supervisory experience.

Master's degree in library or information science.

Familiarity with local area networks and client/server architecture.

Familiarity with TCP/IP and the Unix operating system.
Technical Services Specialist 2

SCHOOL OR DEPARTMENT: University Library

REPORTS TO: Head, Network Support and Services

SUPERVISES DIRECTLY: May supervise student assistants

NUMBER OF EMPLOYEES RESPONSIBLE FOR: 0

JOB FUNCTION: Administers and maintains computer systems used by the University Library staff and patrons. Provides technical expertise relative to personal computers, Novell networks, IBM 3270 systems, and asynchronous (RS-232) communications. Participates in planning and designing new capabilities for the Library's networks and their connection to the University's backbone network and the Internet.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES:


2. Maintains various computer hardware platforms, software applications, and network environments which support the University Library and its users.

3. Installs and tests computer components and systems, network operating systems, and major application software packages.

4. Responsible for technical and user documentation for computer hardware and the network environment.

5. Supports other Information Technology Division staff in consulting on relevant systems; may consult directly with Library staff regarding specialized applications.

6. Assists the User Support Services Department in presenting instruction to Library staff.

7. May supervise student assistants.

8. Evaluates computer hardware and software products to determine if these should be recommended and/or supported.

9. Assists in developing technical budget proposals for administrative review.

QUALIFICATIONS:

1. A Bachelor's degree in electrical engineering or computer science, or the equivalent training and experience in an appropriate computing environment.
2. A minimum of 1 year's professional experience in an comparable computing environment.

3. Demonstrated in depth knowledge and experience with selected computing platforms or network environments, especially Personal Computers, DOS, and Novell networks.

4. Experience or familiarity with, or willingness to learn IBM 3270 systems, SNA, Unix, TCP/IP, OS/2, serial communication protocols.

5. Excellent written and oral communication skills.

EQUAL EMPLOYMENT OPPORTUNITY JOB CATEGORY:

STATUS: Exempt

NUMBER:

ABBREVIATED TITLE: TECH SVC SPC 2

(08/30/94)
POSITION PURPOSE: Why does the position exist? Provide a two-to-three sentence summary of the overall primary purpose of the position, including the position to which it reports.

Under the general direction of the Associate University Librarian for Technical and Networked Information Services, this position is responsible for the management, development, implementation, and fiscal control of the University Libraries' automation efforts, and assists on their planning and design. As well, the daily operation of the Library Computer Center and the physical and logical maintenance of the library online databases are the responsibility of the Head of the Library Systems and Data Base Management Department.

DESCRIPTION OF POSITION RESPONSIBILITIES, DUTIES, AND TASKS: List in order of importance the major responsibilities, tasks, and duties that comprise the means of accomplishing the position's purpose. Starting with an action verb, use task statements to explain what is done, what action is being performed, and what is the purpose of the task (e.g. Balances cash in register by comparing it with the total on the register tape, locating and correcting errors, in order to account for all cash received). Estimate the approximate percentage of time that each duty requires of the total working time, which should total 100%. Attach additional pages if necessary.

DUTIES

(1) Directs the daily activities of the staff including management 50% of the Library Computer Center, assigning and administering special projects, maintaining quality control of the University's catalog information, coordinating automation implementation plans between Systems and individual library units, and evaluating progress towards accomplishing departmental goals.

(2) Prepares and administers the automation budgets and expenditures exceeding $600,000 providing system-wide computing throughout the libraries and negotiates hardware, software, and telecommunications contracts and maintenance agreements with vendors.

(3) Manages the overall planning, development, implementation, operation and continuing expansion of automation activities of the University Libraries. Authorizes purchase of all computer hardware and software purchases for the University Libraries.

(4) Formulates and implements policies and procedures affecting the future of Rutgers library automation, and serves as advisor to library faculty and administrators planning future computer product purchases and enhancements.
CONTACTS: List below any contacts that you have as a routine function of this position. Indicate the frequency (e.g. daily, weekly, monthly), the nature or purpose (e.g. obtain or provide information, negotiate contracts) of the contact, and any human relations skills and behaviors (tactful, diplomatic, even-tempered, levelheaded, courteous) that are routinely expected as part of the normal conduct for these contacts.

The Department Head has routine contact with library administrators, faculty, and staff as well as library system users. Clear, concise communication skills are expected in order to explain how systems operate and what procedures are being used. Negotiation skills are needed to balance staff and resources and satisfy the demands of users. The department head works with vendors to establish prices and to negotiate services. Participation on library-wide committees requires the ability to listen to problem statements, interpret user needs, and work towards providing services which meet those conditions.

AUTHORITY: Describe the level of authority routinely allowed in the position? What are the most difficult decisions made? What are the controls or rules limiting the incumbent's ability to make final decisions and to take action? Provide examples of work actions and/or decisions that are made without prior approval. To what extent is advice and guidance provided from the supervisor?

The department head reports to the Associate University Librarian for Technical and Networked Information Services. The incumbent is expected to make independent decisions regarding existing automation and database quality and to work in consultation with librarians and library administrators in planning for future automation enhancements as well as new configurations in the current system.

CHALLENGES: Describe the typical problems likely to be encountered by the incumbent in performing the position responsibilities? Describe any exceptional problems the incumbent may encounter in performing the job under normal conditions and explain the steps taken by the individual to resolve the problem.

The Systems and Database Management Department head must keep current on all aspects of technology in the libraries, be aware of trends both in the automation arena and in libraries, be able to keep the library automation systems running successfully and yet plan to insure that the libraries will provide information resources in the most appropriate format.

Revised 1/93
EXPECTED OUTCOMES: Describe the accountable or end results for the responsibilities of the position, particularly as they relate to the duties described on the front page. These are the end results for which the incumbent is expected to successfully achieve in performing the job functions of the position and that could be used to establish the performance standards for the appraisal process.

(1) Perform a leadership role in the planning, design, development, and coordination of computer-based systems for the libraries.

(2) Budget accurately to reflect current need and projects for changes anticipated in both fiscal resources and technological advances.

(3) Encourage and challenge staff to be resourceful, innovative and effective in their approach to their individual areas of responsibility.

(4) Direct the prompt correction of errors and inconsistencies in the libraries catalog database to assure that it is maintained at a high quality.

(5) Coordinate library automation activities with University Computing Services.

(6) Offer meaningful training and clearly written documentation to assist the education of library faculty and staff.

QUALIFICATION STANDARDS: Describe the minimum education, experience, or combination of education and experience required to perform the functions of the job. Also describe the training, knowledge, skills and abilities required to perform the functions of the job. It is important that these qualifications be stated as minimums; if they are inflated, they may screen out people who are qualified to do the work.

(a) Education or combination of education and/or experience equivalent to: What formal education or its equivalent is required to perform the job satisfactorily? State the educational background or its equivalent in terms of areas that would provide the knowledge required for entry into the position.

Requires a bachelor's degree or equivalent combination of education and/or experience. An advanced degree is desirable.

(b) Experience: How much job experience is needed to perform the job satisfactorily? State the level and type of experience an applicant should have to be qualified to fill the position.

Advanced administrative and supervisory experience in a large research library environment.

(c) Certifications/Licenses: List any certifications or licenses that an applicant must hold for entry into the position.

Revised 1/93
(d) Knowledge, Skills and Abilities: Detail the specific knowledge (ranging from some to working levels of laws, principles, etc.), skills (oral and written communications, interpersonal, analytical, etc.) and abilities (manual dexterity, etc.) essential to perform the job duties. This includes listing any physical and/or mental demands required for performing the job. Physical demands include both physical actions that may be required to perform a task (lifting, carrying) and the physical environment in which the task is performed (noise, chemicals, heat/cold); mental demands include both learned mental skills (reading documents or instruments, detailed work, language) and conditions that call for mental discipline (stress, multiple concurrent tasks, constant interruptions).

Knowledge of current and developing technologies which will affect the delivery of information services.

Substantial successful experience in project management and implementation of online systems.

Knowledge of and experience in systems design, work analysis, statistics, automation, micro-computing and evaluation techniques.

Excellent communication and interpersonal skills. Must interact effectively with hardware and software vendors as well as with people at all levels of a university community.

(e) Preferences: State any qualifications for education, experience, and certain knowledge, skills and abilities that are not essential to the position but desired.
POSITION DESCRIPTION
Assistant Systems Librarian (Librarian GS-12)

INTRODUCTION:
This position is located in the Automated Systems Division of the Smithsonian Institution Libraries. It is primarily responsible for planning library procedures and policies to aid in the implementation and administration of the Libraries' Total Automated Library System. Secondary responsibility will be for coordinating the application of automation to SIL Circulation.

DUTIES:

The Assistant Systems Librarian will participate in all aspects of library systems design, implementation, and administration with special focus on coordinating the implementation with the library staff. He/she will devise ways in which the Automated System can be used to solve library problems. The incumbent will rely on professional knowledge of library organization, purposes, operations and bibliographic formats and standards as well as a thorough and detailed knowledge of how the system functions. The Assistant Systems Librarian will be a resource for library staff needing help if they are having problems with the System and will then either help directly, resolve with the supervisor, or contact the vendor for further instructions.

The Assistant Systems Librarian will serve on various SIL committees to develop specifications for system improvement and facilitate ongoing library operations so that the best use of the system is made. The incumbent will plan and schedule training for the System, plan and prepare publicity and instructional publications, and will do a substantial amount of training personally. The Assistant Systems Librarian will be responsible for developing SIL-wide circulation procedures and policies and tracking staff participation and progress in using the automated circulation system. In performing these duties the incumbent will use professional knowledge of library science and its practical applications to best communicate the aims and operations of the SIL.

Prior to the installation of each new module or major development of the system the Systems Librarian will aid in the final stages of the detailed planning for the System. The Assistant Systems Librarian participates in monitoring the effect of the system, determining when it is not meeting the needs of the SIL, and making recommendations for adjustments or corrections. The incumbent will work with other library staff independently, using knowledge of library purposes and organization to ensure that each staff member has the right kinds of system commands assigned him/her, and the proper supporting procedures.
The incumbent will assume operations responsibility for the installation of all circulation software. This includes overall software development planning, and setting up compile options, run time options, and all necessary batches to run automated circulation. The incumbent will draft, propose, and implement policy decisions concerning all aspects of SIL circulation activities. The incumbent will perform procedure and work flow analysis for all aspects of SIL circulation.

The incumbent will actively monitor contracts with automation vendors and will participate in negotiations representing the SIL's interests.

The Assistant Systems Librarian will share the responsibility for the operation, maintenance and enhancement of the SILAN and train new users on the network. Along with the Systems Administrator, the incumbent will assume responsibility for how the network is used. This includes any policy issues concerning the network or microcomputer technology in the SIL.

The incumbent will evaluate the library system, equipment, appropriateness of application, cost, etc., as associated with SIL processes and purpose. He/she will recommend to the Systems Administrator changes, developments, new applications or program specifications when necessary.

**FACTOR 1: KNOWLEDGE:**

1) Full professional knowledge of theories and principles of library science, as evidenced by the professional library degree or at least three years work in a complex library system. This knowledge is used to work with other library staff and to plan and implement existing and new procedures on the System. Familiarity with the Marc formats and cataloging standards and procedures will be necessary. Experience with at least one major bibliographic utility will be necessary.

2) Thorough knowledge of automated library systems as evidenced by academic qualifications or experience as a systems librarian or similar position in a library environment.

3) Professional knowledge of both manual and automated library circulation procedures and policies as evidenced by professional level work in a library circulation department or professional level work on an automated library circulation system or both.

**FACTOR 2: SUPERVISORY CONTROLS:**

1) The incumbent will report to the Systems Administrator. The supervisor will set overall priorities and schedules. For example, the sub-system implementation sequence and schedule, and
will communicate overall library policy (for example, that library service not be suspended during implementation).

2) The incumbent will develop detailed priorities and schedules, will work with the supervisor in proposing changes in overall library policy and operations, will modify instructions as necessary to fulfill overall goals. The incumbent will work closely with the supervisor to insure coordination of work for the best interest of the Libraries.

3) The incumbent will generally be evaluated only for overall results and adherence to policy; however, the incumbent’s work will be spot-checked on new or unusual assignments.

4) The incumbent will be responsible for drafting and proposing new policies for SIL approval that concern his/her area of work.

FACTOR 3: GUIDELINES:

1) Guidelines are standard library practice and procedures, standard practice and procedures in system development, the SIL’s Total System planning documentation, and the vendor’s system documentation.

2) These guidelines are usually incomplete and may be contradictory. When such is the case, the incumbent uses judgement to solve problems, based on understanding of SIL policy, goals of the project, etc.

FACTOR 4: COMPLEXITY:

1) The incumbent is responsible for implementation of a library System that has major impact on every person and operation of the SIL. In coordination with the Smithsonian’s Office of Information Resource Management the incumbent ensures that the entire automation project is implemented. This includes site preparation, staff training, orientation, documentation preparation, and vendor compliance with contract.

2) The incumbent works with library users, library staff, library procedures, and automated procedures; each of these categories is made up of individuals who are unique, and whose goals or objectives may be ambiguous, and often contradictory. Incumbent must create an orderly and stable system out of these diverse materials.

3) Each installation of a System this comprehensive is unique, no matter how many installations exist already. The incumbent will have to create new techniques and extend traditional ones, based on previous experience.

FACTOR 5: SCOPE AND EFFECT:

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1) The purpose of the work is to install and operate an automated system that will encompass every aspect of the SIL.

2) The System will affect each staff member in some way every day, and will affect each library user every time he uses the SIL. The System will control data on every one of the several million items owned by the SIL, and will be involved with every process that affects those items, from request, through ordering, through cataloging, through inventory control, through circulation, through discard. The user interface with the system will play a major role at SI, i.e. the Libraries' image as a competent, valuable part of the research process at SI will depend on the quality of the interactions the users have with the System. It is necessary, therefore, to ensure that this interface is as efficient and effective as possible.

FACTOR 6: PERSONAL CONTACTS

1) Contacts are with all library staff to discuss problems and to provide training; with systems analysts in the SI's Office of Information Resource Management to plan and coordinate installation and operation of the System; with contracts specialists in the SI's procurement office to supply data to resolve contract disputes, if any; with several levels of the System vendor's staff to coordinate implementation, operations, and maintenance; and with SIL's clientele to provide orientation sessions and to resolve problems they may have.

FACTOR 7: PURPOSE OF CONTACTS:

1) Most of the types of contacts listed under Personal Contacts involve resolving problems. Information must be exchanged, ideas generated and discussed, and persuasion to the SIL-beneficial viewpoint furthered.

FACTOR 8: PHYSICAL DEMANDS:

1) Most of the work is sedentary, but maintenance and trouble-shooting require some lifting, stooping, kneeling, crouching, and reaching. Boxes and equipment of up to 40 pounds must be moved.

FACTOR 9: WORK ENVIRONMENT:

1) The work is partially in offices, and partially in computer rooms with drafts and cold air.

SELECTIVE FACTORS
1) Knowledge of academic library processes and purposes.

2) Thorough knowledge of automated library systems.

3) Professional knowledge of both manual and automated library circulation procedures and policies.

QUALITY RANKING FACTORS

1) Experience in recon (retrospective conversion of cataloging) or other major cataloging projects.

2) Experience in training users on online systems.

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Proposed Position Description for Computer Equipment Analyst GS-10

Introduction

This position is located in the Automated Systems Division of the Smithsonian Institution Libraries. It is responsible for providing aid in the coordination of microcomputer technology and equipment throughout the Libraries.

Duties

1. Maintains a database of all SIL computer equipment, peripherals, and software. Tracks request for such equipment, orders, receipt, accessioning when appropriate, delivery, and installation. Provides reports for management from database as needed.

2. Coordinate solution to SIL microcomputer problems. Such action might involve advice, troubleshooting, diagnosis, and referral. Tracks recurrent problems for strategic response.

3. Evaluates and/or test microcomputer equipment for applicability to SIL needs.

4. Evaluates computer equipment vendors and suppliers.

5. Reviews current literature concerning microcomputer technology to disseminate as appropriate to SIL staff and to keep current with available technology.

6. Administer the SIL local area network. Primary contact point for problems, lan vendor and maintenance.

7. Plan and coordinate all issues concerning the placement and moving of computer-related equipment in the SIL including data cabling, power wiring, safety issues, etc.

8. Coordinate telecommunications problems for both SIL portion of SIBIS and SIL microcomputers with SI Office of Telecommunications, vendors, and data carriers.

KNOWLEDGE

1. Familiarity with MS-DOS type microcomputers, MS-DOS operating system.

2. Experience in hardware and software installation and trouble shooting.

3. Ability to reason analytically.
4. Knowledge of SI and industry computer standards and policies.

5. Knowledge of SI and industry telecommunication standards and policies.

6. Knowledge of SI and government procurement regulations and procedures.

**Supervisory Controls**

The incumbent will report to the SIL Systems Administrator who will set priorities and schedules. When assignments, jobs, or problems arise that cause conflicts in resolving, the incumbent will refer them to the supervisor for ranking. The incumbent will be responsible for implementing current policies.

The incumbent will be evaluated for results, user satisfaction, and avoidance of major disruptions to ongoing SIL work.

**Complexity**

The incumbent will need to coordinate a user base of approximately 120 microcomputers with many different peripherals and software. Users needing assistance will range from the computer-sophisticated to new users. The incumbent will need to follow general long term schedules while maintaining sufficient flexibility to adjust to emergencies.

**Scope and Effect**

The purpose of the work is to insure the smooth, efficient functioning of SIL through staff use of microcomputer hardware and software.

**Personal Contacts**

The incumbent will meet with SIL staff to discuss problems, OIRM staff to seek advice and aid, and vendors to discuss products and solutions.

**Physical demands**

The work is primarily sedentary though travel to SIL branches and occasional lifting of weights up to 30 pounds may be necessary.

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POSITION DESCRIPTION.
Librarian (Automation) GS-9

INTRODUCTION.

This position is located in the Systems and Technical Services Division of the Smithsonian Institution Libraries (SIL). It is primarily responsible for microcomputer support for all Smithsonian Institution Libraries staff.

DUTIES:

1. Assists SIL staff in solving microcomputer related problems. Such action might involve advice, troubleshooting, diagnosis, and referral. Visits sites to inspect equipment and provide orientation on aspects of its operation, maintenance, and management.

2. Installs, configures, and troubleshoots microcomputer software applications for SIL staff.

3. Prepares macros, menus, and batch files to enable SIL staff to more efficiently use microcomputer software.

4. Assists in the administration of the SIL local area network, a lan of over 70 microcomputers linked together.

5. Assists in coordination of cabling, wiring, and placement of microcomputers.

6. Provides guidance to SIL staff in microcomputer telecommunications problems.

7. Assists in the evaluation, selection, and procurement of microcomputer software and hardware for SIL needs.

8. Prepares written documentation and training aids concerning microcomputer technology.

KNOWLEDGE:

1. Knowledge or skill in microcomputer technology.

2. Experience with and mastery of Dbase, Lotus, WordPerfect, MS-DOS and other microcomputer software.

3. Experience in hardware and software installation and
troubleshooting.

4. Experience with assisting users in microcomputer software and hardware.

5. Professional knowledge of theories and principles of library science, as evidenced by the professional masters-level library degree or equivalent experience.

**Supervisory Controls:**

1. The incumbent will report to the Chief of the SIL Systems Office who will set priorities and schedules. When assignments, jobs, or problems arise that cause conflicts in resolving, the incumbent will refer them to the supervisor for ranking. The incumbent will be responsible for implementing current policies.

2. The incumbent will be evaluated for results, user satisfactions, and avoidance of major disruption to ongoing SIL work. The incumbent’s work will be spot-checked occasionally.

**GUIDELINES:**

1. Guidelines are standard library practice and procedures, standard practice and procedures in system development, the SIL’s Total System planning documentation, and the vendor’s system documentation.

2. These guidelines are usually incomplete and may be contradictory. When such is the case, the incumbent uses judgement to solve problems, based on understanding of SIL policy, goals of the project, etc.

**COMPLEXITY:**

1. The incumbent will need to assist a user base of over 120 microcomputer users with many different applications and peripherals. Users needing assistance will range from the computer-sophisticated to new users.

2. The incumbent will need to follow general long term schedules while maintaining sufficient flexibility to adjust to emergencies.

**SCOPE AND EFFECT:**

1. The purpose of the work is to install and operate an automated system that will encompass every aspect of the SIL.

2. The widest-possible access to SIRIS is a fundamental priority. Insuring this access by coordinating the data...
technical, and procedural issues will be the responsibility of this position.

CONTACTS:

1. The incumbent may, at the supervisor's direction, deal with SI OIRM and Procurement staff and with vendors.

PURPOSE OF CONTACTS:

1. Most of the types of contacts listed under Personal Contacts involve resolving problems. Information must be exchanged, ideas generated and discussed, and persuasion to the SIL-beneficial viewpoint furthered.

PHYSICAL DEMANDS:

1) Most of the work is sedentary, but maintenance and trouble-shooting require some lifting, stooping, kneeling, crouching, and reaching. Boxes and equipment of up to 40 pounds must be moved.

FACTOR 9: WORK ENVIRONMENT:

1) The work is partially in offices, and partially in computer rooms with drafts and cold air.
INTRODUCTION:

This position is located in the Systems and Technical Services Division of the Smithsonian Institution Libraries. It is primarily responsible for planning and implementing major modules of the SIL portion of the Smithsonian Institution Research Information System (SIRIS) and for managing all aspects of the SIL Local Area Network (LAN).

DUTIES:

The Assistant Systems Librarian will serve as the SIL Security Officer responsible for analyzing all computer security issues for all SIL systems, proposing policy and procedures to protect SIL systems and data. The incumbent will be responsible for establishing and facilitating all technical aspects of SIL Internet Access including such projects as an SIL Gopher, Mosaic, etc. The incumbent will be the SIL Lan Manager responsible for all aspects of this mission-critical system used regularly by all SIL staff including long-range planning, implementation of new applications and hardware, testing and evaluation, security, connectivity, review, and continual enhancement.

The incumbent will provide technical assistance for networked CD-ROM systems and investigate ways to enhance and improve them.

The Assistant Systems Librarian will participate in all aspects of systems design, implementation, and administration of all SIRIS modules including the Online Public Access Catalog, Cataloging, Acquisitions, and Circulation with special focus on, after initial implementation, coordinating the implementation and administration of serials control, serials check-in, and the acquisitions module. The incumbent will also be responsible for the conversion of the existing acquisitions sub-system to SIRIS. The administration of the acquisitions module will involve the incumbent in policy and procedure composition as well as system technical issues such as transmission of machine-readable financial data to the SI Accounting Office, Electronic Data Interchange (EDI) with automated publishers, loading of publisher-supplied invoice data, etc. The incumbent will rely on professional knowledge of library organization, purposes, operations, and bibliographic formats and standards, a thorough and detailed knowledge of SIRIS' functions, and familiarity with automated library acquisitions issues. The incumbent will be a resource for library staff needing help if they are having problems with SIRIS and will either help them directly, resolve with the supervisor, or contact additional help.

The incumbent will serve on various SIL committees and task forces to develop specifications for system improvement and facilitate ongoing library operations to make best use of the system. The Assistant Systems Librarian will be responsible for developing procedures and policies for the implementation of the MARC holdings format and coordinate implementation with other SIL departments such as Cataloging and Acquisitions.

FACTOR 1: KNOWLEDGE

1. Full professional knowledge of theories and principles of library science, as evidenced by the professional masters-level library degree or equivalent.

2. Thorough knowledge of automated library systems as evidenced by academic qualifications and experience implementing or administering modules of a complex, integrated local library system. At least four years work with a complex, integrated local library system. Familiarity with the standard acquisitions procedures will be necessary.

3. Professional knowledge of manual and automated serials control procedures and issues or professional knowledge of MARC holdings format implementation.

**FACTOR 2: SUPERVISORY CONTROLS:**

1. Incumbent will report to the Systems Administrator. The supervisor will set overall priorities and schedules and communicate overall library policy.

2. The incumbent will develop detailed priorities and schedules, will work with the supervisor in proposing changes in overall library policy and operations, will modify instructions as necessary to fulfill overall goals. The incumbent will work closely with the supervisor to insure coordination of work for the best interests of the libraries.

3. The incumbent will generally be evaluated only for overall results and adherence to policy; however, the incumbent's work will be spot-checked on new or unusual assignments.

**FACTOR 3: GUIDELINES:**

1) Guidelines are standard library practice and procedures, standard practice and procedures in system development, the SIL's Total System planning documentation, and the vendor's system documentation.

2) These guidelines are usually incomplete and may be contradictory. When such is the case, the incumbent uses judgement to solve problems, based on understanding of SIL policy, goals of the project, etc.

**FACTOR 4: COMPLEXITY:**

1) The incumbent is responsible for implementation of a library System that has major impact on every person and operation of the SIL. In coordination with the Smithsonian's Office of Information Resource Management the incumbent ensures that the appropriate aspects of the project are implemented. This includes site preparation, staff training, orientation, documentation preparation, and vendor compliance with contract.

2) The incumbent works with library users, library staff, Smithsonian Office of Information Resources Management staff, and vendor staff; each of these categories is made up of individuals whose goals or objectives may be ambiguous, and often contradictory. Incumbent must create an orderly and stable system out of these diverse materials.

3) Each installation of a System this comprehensive is unique, no matter how many installations exist already. The incumbent will have to create new techniques and extend traditional ones, based on previous experience.

4) The incumbent will need to anticipate problems and keep up-to-date with the latest developments in technology and networked information access in order to guide SIL Systems activities in this area.

**FACTOR 5: SCOPE AND EFFECT:**

1) SIL staff and users rely on and expect solid, secure connectivity to automated tools and information sources. The incumbent will be responsible for this.

2) The purpose of the work is to install and operate an automated system that will encompass every aspect of the SIL.

3) The Acquisitions module and the implementation of serials control will affect each staff member in some way every day, and will affect each library user every time he uses the SIL. The System will control data on every
one of the 1.2 million items owned by the SIL, and will be involved with every process that affects those items, from request, through ordering, through cataloging and through inventory control.

**FACTOR 6: PERSONAL CONTACTS**

1) Contacts are with all library staff to discuss problems and to provide training; with systems analysts in the SI's Office of Information Resource Management to plan and coordinate installation and operation of the System; with contracts specialists in the SI's procurement office to supply data to resolve contract disputes, if any; with several levels of the System vendor's staff to coordinate implementation, operations, and maintenance; and with SIL's clientele to provide orientation sessions and to resolve problems they may have.

**FACTOR 7: PURPOSE OF CONTACTS:**

1) Most of the types of contacts listed under Personal Contacts involve resolving problems. Information must be exchanged, ideas generated and discussed, and persuasion to the SIL-beneficial viewpoint furthered.

**FACTOR 8: PHYSICAL DEMANDS:**

1) Most of the work is sedentary, but maintenance and trouble-shooting require some lifting, stooping, kneeling, crouching, and reaching. Boxes and equipment of up to 40 pounds must be moved.

**FACTOR 9: WORK ENVIRONMENT:**

1) The work is partially in offices, and partially in computer rooms with drafts and cold air.

**SELECTIVE FACTORS**

1) Knowledge of academic/special/research library processes and purposes.

2) Thorough knowledge of automated library systems.

3) Professional knowledge of both manual and automated library serials control procedures and policies.

4. Experience with library acquisitions in an automated environment.

**QUALITY RANKING FACTORS**

1. Mastery of microcomputer technology.

2. Knowledge of US MARC Holdings format and its implementation in local library systems.
The Director of Systems is responsible for overseeing the acquisition, installation, and support of automated systems for the University Library. This requires knowledge of current computer technology and of the developments taking place in the field of Information Technology. Within the Library, the Director works with the department heads and the Library Administration to determine needs and the most effective solutions for those needs. The Systems Office staff must be managed in an efficient manner to support Library staff and the end-users. The Director functions as a liaison to other University units, such as Information Technology and Communications, and to other institutions and vendors. The budgetary restraints for hardware and software require management of expenditures in those areas. Planning for future expansion or changes is essential to ensure that adequate capacity will be available and that reliability will be high.

Supervision:
1. Reports to Associate University Librarian for Public Services
2. Supervises: 1 faculty (Systems Librarian for Technical Services)
   3 Programmer/Analysts
The Assistant Systems Librarian is responsible for supporting the ongoing use of the Library's integrated system, with particular responsibility in the areas of table and screen maintenance, updating, testing, and trouble-shooting as well as dissemination of information to the Library staff. Assists as a liaison with the two computing centers responsible for the system support and telecommunications network via the UBLAN. Responsible for system documentation control and distribution, security system (including staff awareness), and liaison with NOTIS Systems Inc. Provides substantial support for the planning for and implementation of new modules or software releases.

This position will stay aware of new developments in the information processing field and how the role of the Library is evolving. Assists in analyzing equipment, staffing, and budgetary impacts of new systems.

The Assistant Systems Librarian assists in developing and carrying out a plan for staff training in both general and specific computer-related areas. Works with Library managers and staff to develop efficient work processes and information flow. Assists in overall systems office responsibilities for micro computer support, support of CD-ROM systems, etc.

**Supervision:**

1. Reports to Systems Planning Librarian
SELECTED READINGS


