

RMG Consultants, Inc.

Papers on Library Automation

Request for Proposals for Integrated Library Systems

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We at RMG Consultants, Inc. ("RMG") have found that the best way to develop a Request-for-Proposal ("RFP") is through a well-designed library automation planning process. Until a library has gone through a very careful planning process with its key staff and managers, and has identified its needs and goals for automated systems and services, it cannot state with confidence its requirements for automation.

Until requirements can be stated at a meaningful level of detail, it is not possible to estimate schedules and budgets for the project that will be necessary to provide the agreed-upon systems and services. Until reasonably long-term automation requirements are stated (for a period of at least five years), it is not possible to determine if systems and services im-

plemented in the short-term will have growth potential to address longer-term goals and requirements. To systematically address automation needs, goals, and requirements is in itself a complex planning process that should be designed to include individuals in the library environment who make or are affected by decisions to automate. We believe that a successful library automation project must develop the understanding, acceptance, approval, and

support of these various individuals. Depending on the type of library, they may include members of library boards or friends groups, faculty, advisory committees, computer experts from the community or faculty, institutional administrators, patrons, students, and library staff from all levels of the organization.

The process of pervasive change brought on by successful implementation

Table 1 presents RMG's view that library automation is an organizational process that requires definitions of goals, objectives, budgets, and schedules; and at the same time, a social process that should develop the understanding, acceptance, approval, and support of individuals within the library's environment who make or are affected by decisions to automate.

Table 2 outlines the basic steps in a

classic procurement process. How to involve the necessary individuals is a problem of process design. Table 3 identifies a set of groups with which a library automation planning and procurement process can be designed. RMG recommends such an approach in order to achieve the best possible project organization, staffing, and RFP.

TABLE 1
Automating a Library is:

1. An organizational process involving
 - Goals
 - Objectives
 - Budget
 - Schedule
2. A social process requiring
 - Understanding
 - Acceptance
 - Approval
 - Support from those who
 - Make decisions
 - Implement decisions
 - Are affected by decisions
3. Therefore, planning and procuring an automated system must be conducted appropriately

TABLE 2
Procurement of an Automated Library System Involves:

1. Stating requirements
2. Issuing a Request for Proposal (RFP)
3. Evaluating proposals
4. Negotiating/contracting for system
5. Producing final Project Definition, Budget, and Schedule that specifies plans for implementation of the selected system
 - Technical
 - Financial
 - Organizational
6. Executing contractual agreements

of an integrated library system begins with planning and a statement of requirements. We believe the keys to successful library automation are education, planning, and the ability of people to work together. We view library automation as a technically-oriented social process, and believe that to be optimally successful, the library automation planning process should involve as many individuals in the library organization as feasible.

RMG's concept for development of an RFP actually targets the production of two documents: a Requirements Report ("RR"), that describes the technical requirements for automated systems and services and a Request-for-Proposal ("RFP"), that is intended primarily as an administrative document to inform vendors of the rules, regulations, and procedures of the procurement process itself.

TABLE 3
Defining the Groups for the Process

Please note that an automation planning process must be designed according to the type, size, and organizational environment of the library, and that these basic concepts can be adapted for single-library or cooperative library automation projects.

1. Review Group

To be composed of key individuals who represent critical elements of technical, policy, and operational concerns; it will make final decisions relating to the project definition, goals, objectives, and statement of system requirements

- Library management
- Board members/faculty
- Data processing experts from
 - Faculty
 - Computer Center
 - Business/industry
 - Government

2. Evaluation Team

Perhaps the same membership as the Review Group, or a subset of it; this group makes final evaluation of vendors' proposals, based upon reports from its Task Forces.

3. Task Forces

Of staff and other project participants, organized per subsystem (e.g., circulation, online public access catalog) or groups of subsystems. Task Forces will finalize assigned sections of the Requirements Report; and later evaluate assigned sections of vendors' proposals, and report evaluations to the Evaluation Team.

4. Negotiation Team

Perhaps the same membership as the Evaluation Team, or a subset; this group is charged with negotiating the best possible contracts for systems and services.

5. Formal Library Management

Is responsible for successful implementation of the programs developed through the library automation planning process, and for assimilation of the project organization into ongoing system governance and management.

Table 4 outlines the purposes of a Requirements Report ("RR"), particularly in working with project personnel (see Table 3), primarily the Review Group and Task Forces. Table 5 outlines the purposes of the accompanying RFP.

In working with library staff to develop the Requirements Report, it is essential to keep in mind that its purpose is to describe *what a suitable automated library system should be and do, but not how it should perform various functions.*

The *distinction between what a system should do and how it should do it is the distinction between requirements and specifications.*

Each computer system has its own, unique specifications. It is possible for several computer systems with different designs and specifications to fulfill the same set of library system requirements.

By working at the requirements level, library staff can focus on what a system should do for the library, leaving the technical work of detailed computer system design and specification to the vendors who develop particular systems. For library staff to work at the level of specifications is tantamount to their saying exactly how a system should be designed and implemented -- which goes beyond the experience and skills of individuals who are not library systems analysts and developers.

An analogy might be to state requirements for transportation from the library to the airport in one hour. Different ways of

fulfilling the requirement might include a bus ride, taxi service, airport limousine, personal automobile, and commuter train. The best choice to fulfill the requirement might not be known until the scheduled departure and arrival times, the points of departure, and costs for each alternative are specified.

So it is with requirements and specifications. Unless a library knows precisely which automated system it wishes to implement, it should work at the requirements level, and await vendors' proposals, system descriptions, and technical docu-

should be and do, not how." It is often difficult, and not always possible, to maintain the distinction between the "what" and "how" of a system, and inevitably in the RR that fine line is crossed. However, this approach to stating requirements allows library staff to work at the "generic, what-level," leaving the "specific, how-level" to vendors' specifications of actual systems.

There are no industry standards for RFPs. RMG has developed its own standards and practices to a high degree, such that all of the processes and documents required for a comprehensive library automation project can be developed in separate steps of a coherent planning and procurement process that is performed in phases. Our comprehensive methodologies for planning and procurement extend through the range of activities from preliminary planning to contract negotiations. We view the development of an RFP as one step in a comprehensive procurement process that concludes with the execution of necessary contracts, and which in turn leads into the system implementation phase. Each of our documents and processes anticipates the remaining project phases, and prepares the organization for them.

One needs only to look at how fast automated library systems are changing to realize that specifications change with each improvement, and that libraries should state what they want, leaving the vendors to propose how best each of these "whats" can be fulfilled.

TABLE 4
Purposes of the Requirements Report

- Developing personnel:
 - Orienting
 - Educating
- Planning
- Soliciting proposals from vendors
- Comparing and evaluating proposals

mentation to provide specifications of alternative systems. It then becomes the task of library staff to compare vendors' specifications of particular computer systems to the library's stated requirements, in order to identify the system judged to be most suitable.

This Requirements Report is intended by its nature to describe "what a system

TABLE 5
Purposes of the
Request For Proposal (RFP)

1. Solicit proposals
2. Describe procurement process
 - Issuing agency
 - Regulations and laws
 - Evaluation process
 - Schedules
 - Events
 - Dates
3. Instruct vendors on how to prepare and submit proposals
 - Format
 - Content
 - Specific questions
4. Describe evaluation process and criteria

The role of the consultant in the RMG-prescribed process is to assist the Review Group and Task Forces with technical understanding of the library automation marketplace, with its numerous products and services; of the concepts and designs of integrated systems; of the nuances of developing and stating system requirements, and of project plans.

It is RMG's practice for Task Forces of staff to review and revise draft versions of the Requirements Report. We have found that the most efficient and effective way for an organization to understand and state system requirements is to react to a well organized RR and adapt it by applying needed revisions. With this approach the consultant provides the draft of the Requirements Report, and works with Task Forces of staff to review and revise it.

In such a process the consultant can serve as a technical resource to various groups of staff that are assigned to focus on specific topics of library automation and system requirements. Usually, in an RMG-assisted process, each Task Force is assigned responsibility for one application subsystem, or for a group of related ones. Table 6 presents the outline of a typical RMG-assisted Requirements Report.

It is our experience that the best possible RFPs are produced through the type of library automation planning process that has been described above, according to the kind of document organization and outline presented by Table 6. The technical expertise and seasoned judgment required to design such processes and to produce such documents are not readily found in every library organization, and are the basis for consulting assistance.

RMG believes that a consultant may

TABLE 6
Outline of Requirements Report (RR)

1. Introduction
2. System Overview
 - Bibliographic
 - Catalog inquiry
 - Circulation
 - Interlibrary loan
 - AV materials and equipment booking
 - Acquisitions
 - Serials control
 - Cataloging
 - Online public access catalog
 - Information and referral
 - External data base access

- Administrative:
- Word processing
 - Spread sheet
 - Payroll
 - General ledger
 - Report generator

3. System functions
 - Input
 - Update
 - Query
4. Information requirements
 - Outputs and inputs
 - Batch
 - Online
 - Interfaces with other systems
 - System data files
5. System design constraints
 - Software environment
 - Hardware environment
 - Performance objectives
 - System growth requirements
 - Adherence to standards

6. Implementation
 - Vendor services
 - Documentation
 - Training
 - Supplies
 - Acceptance procedures

Appendix 1 Transaction Mixes and Response Times for Benchmarking and Acceptance Tests

Appendix 2 Benchmark and Acceptance Test Definitions and Standards

Appendix 3 Requirements for Contractual Warranties

best assist a library by working through an effective library automation planning process that is designed to educate project participants about library system requirements and the automation marketplace, and to develop the ability of staff to work together in new ways on new topics, in order to set the stage for the organization's transition to an integrated library system and full realization of its promise. In our experience such assistance can save the library significant time and difficulty in producing an RFP. Too often we have seen libraries and cooperative library automation projects spend years in such developments and dialogues, where alternatively, a well-organized process could have yielded a qualitatively better state of organizational readiness and a comprehensive and coherent set of plans, budgets, schedules, plus an RFP document, with much less time and effort. We believe that well-practiced processes and methods for planning and procuring automated systems can greatly assist a library, and are for most organizations a better alternative than trying to develop such methodologies and expertise on their own.

With this approach, the RFP is seen as one among a series of documents (including plans, budgets, schedules, contracts), and the development of the RFP as one among a series of processes (including planning, contract negotiations, and implementation).

If a competitive procurement process is to be conducted, then a library should not involve a vendor in development of an RFP. If a sole source procurement without competitive bids is wanted, then the library should gain as much knowledge as possible of the vendor and system. The special procedures and documents for accomplishing this must not be confused with a competitive request-for-proposals.

A well-conducted procurement process should encourage competition among proposers, and not give unfair advantage to any one of them. A consultant can certainly assist the library to understand the library automation marketplace, and to avoid the appearance, accidental or otherwise, of favoring a particular product. Even when staff may have predilections for particular vendors or systems, we often see opinions change during the course of objective and thorough procurement processes. The construction of an objective and fair RFP is an important starting point.

If vendors receive an RFP that seems to describe a competitive product, they may well not respond to it. If vendors receive an RFP from a library working with a consultant with known prejudices, the RFP may

also go unanswered. Sometimes, by copying another organization's RFP, a library may unwittingly put itself in such a position.

The library automation marketplace is complex; the increasingly sophisticated products and services are difficult to describe. It costs thousands of dollars for a system vendor to write a comprehensive and understandable proposal and to appear on site at a library to present it. A prejudicial or poorly written RFP is viewed by many vendors as an expensive liability to be avoided. One role of a consultant is to assure that the library's RFP will in fact successfully invite the wanted proposals.

The procurement process is essentially one of information exchange between the library and vendors: the library issues an RFP; the vendors write proposals; the library asks questions verbally and in writing; vendors make presentations and provide written answers; contract negotiations produce final contract documents, incorporating the RFP, proposal, and subsequent written exchanges that constitute the library's understanding of the successful vendor's offerings. The purposes of these various processes and documents are for the library to gain as much information and understanding as possible of the vendor, system, and services before contracts are executed, to minimize surprises during the implementation phase, and to produce a final project definition (implementation plans, budgets, and schedules; and project organization and staffing).

It is our advice that libraries seek systems through a competitive RFP process, which in our experience yields the best possible prices, terms, and conditions. Competition definitely favors the library automation buyer, and all the more so if the procurement process is skillfully conducted.

The question of standardized RFPs and systems contracts comes up from time to time. We have never reached the point in our work with all types and sizes of libraries where we believed this is possible. This is not to say that there is no carry-over from one procurement to another -- just that there is too much changing too fast in too many product lines for there to be a static set of considerations for buying technology on the move.

