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THE LIBRARY

Integrated Automated Library System

Request for Proposals

Sample Model Document

Date: **[2004]**

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0 Foreword

This document is a draft Request for Proposals for circulation to potential suppliers of an automated integrated library system and associated facilities for the Library.

[This is a sample document and assumes a library using English and Asian languages such as Urdu, Hindi, Gujarati, where CDS/ISIS has been used and a commercial system is to be procured by this 'Request for Proposals'.]

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1 Introduction

1.1 Scope of the document

The purpose of this Request for Proposals is to specify for potential suppliers the requirements of the Library for an integrated system for the management of its Library operations.

1.2 Form of proposals

Suppliers are invited to submit proposals for an integrated library automation system, covering:

- the necessary hardware
- the operating system software
- a proven applications package capable of providing the
 - major functions of acquisitions, cataloguing, serials control,
 - on-line public access and enquiry facilities, circulation, report generation
- management/financial information relevant to these functions
- appropriate communications facilities between the central configuration and remote users

1.3 Contract

The contract will be for the following: supply, delivery and installation of the system and communications hardware; software delivery and installation (including any customizing or development of applications software that may be required); training of staff; continuous maintenance of the system hardware and software, including provision of the latest version of software as and when available (the maintenance contract being on an annual basis); necessary conversion processes as detailed in this Request for Proposals.

1.4 The Library

The Library has been established to { insert purpose here }

Materials in the library are catalogued according to AACR2 and classified by DDC.

As well as books there are rare books, manuscripts, CD's

1.5 Holdings

Of the above, 20,000 books are recorded on CDS/ISIS in two databases, Asian and Latin and will need machine conversion. Suppliers should propose sufficient storage for a complete database of 3,000,000 titles. The expected annual increase in the size of the database is given in Appendix A.

1.6 The national and international role of The Library

1.7 Project aims and objectives

It is planned to purchase a standard software package which will require only a limited amount of specialist computer personnel for its operation, e.g. one systems librarian and two computer operations staff. The new system is intended to automate and integrate the following functions:

Acquisitions - ordering, receipting, claiming, fund accounting, enquiries, reports and statistics

Bibliographic control - creating and maintaining catalogue records (including subject control) of all material and providing on-line access to them, making records available to other libraries and beyond; it is also proposed to include a union catalogue of materials in other libraries in The country

Serials control (e.g. periodicals, magazines) - ordering, receipting, routing, claiming, binding, fund accounting, enquiries, reports and statistics

Circulation control - issues and returns from closed and open access collections, overdues, materials booking, enquiries, reports and statistics

Report generation - production of select lists of material according to the prevailing standards of presentation (e.g. select bibliographies)

Information retrieval - on-line public access to bibliographic and also non-bibliographic databases including data bases of full-text records and images, staff enquiry, free text retrieval, selective dissemination of information; access to external resources via Internet and access to data held on CD-ROM in as seamless a way as possible

Management information - generation of standard and *ad hoc* reports, statistics on usage, stock control, fund accounting

1.8 Benefits

The integrated system will be expected to provide the following benefits:

Single integrated database for all library materials, updated and maintained in real time and capable of consultation anywhere in the building.

Searching of externally produced databases for research purposes and access to non-bibliographic databases, using where appropriate the Z39.50 Search and Retrieve standard

Access to records via telecommunication networks and via Internet

Improved management and financial control of library resources by more efficient and effective access to a complete

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range of up-to-date and accurate information

2 Existing facilities

The Library is currently using for its collection the CDS/ISIS software package.

2.1 Cataloguing

Records are being produced for the catalogue on the CDS/ISIS software package in two databases called urd for Urdu and eng for English (and other European languages).

It is believed that these record will be easy to convert for the new system. From to , about xx such records will have been produced. These records will need to be loaded into the new system by the supplier to form the initial database. The MS/DOS character set is used. The system will need to support the range of Asian and Latin characters and diacritics that have been included and should support a character set maintaining compatibility with UNIMARC. It must be able to convert existing records on CDS/ISIS from the Asian and Latin DOS character sets. A list of characters required is found in Appendix E. In future, the library will hope to acquire records from external sources (e.g. tapes from US Library of Congress in US MARC format, and other sources) if it is more economical than to create records locally.

The supplier should generate an authority file from the headings found in the records.

2.2 Acquisitions

The library expects to acquire approximately ,000 accessioned items per year and serial parts relating to ,000 current serials. Approximately % of accessioned material will be purchased and % received by donation or exchange. A large number of suppliers will be used, most of them from outside the country, involving the requirement to deal with transactions in foreign currencies. Many items have to be ordered directly from the publisher and this often involves payment in advance. The system will need to cope with one-off suppliers and keep track of payments in advance.

Acquisitions have been added to the CDS/ISIS catalogue and have accessions numbers in the form

2.3 Serials control

Binding policy and a record of action on binding need to be included in the system.

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3 Outline of required system

This section provides a brief outline of computer equipment and software required for a fully integrated computer system for the Library.

Suppliers are not required to respond to or comment on the information given in this section. The specific mandatory and desirable requirements are contained in Section 5.

There may be a number of different ways to achieve the requirements of this Request for Proposals and it will be for prospective suppliers to describe fully how they propose meeting the Library's needs.

The system requirements are described in the following paragraphs and further details including sizing and growth rates are given in Appendix A.

3.1 System hardware configuration

The hardware configuration required to support the basic system defined in Section 1.5 will be:

Library	15 workstations initially with the facility to rise to 120
	4 printers attached to workstations; other workstations
	must all have the facility to attach a printer
Network access	maximum 50 concurrent users (additional to above)

The supplier must supply sufficient disc storage, tape drives, communications etc. and any peripherals to support at least the complete system outlined in this Request for Proposals. However, a supplier may suggest for financial or logistic reasons a gradual phasing (see 5.1), taking into account the areas which most need automation.

A final database size of 3,000,000 items can be assumed (*see Appendix* for the projected annual increase). The supplier should take this into account when sizing the system.

3.2 Communications

3.2.1 Network

Proposals should indicate in detail the network topology proposed, the cabling and protocols that should be used.

3.2.2 Modems

If there is a requirement for modems, e.g. for access from external sites without Internet connections, this

should be stated.

3.3 Cabling and installation

The supplier should include in the proposal the method of connecting all the equipment together. The costs associated with this have to be included in the overall cost.

3.4 Operation

The system when fully operational and after the initial development stage, should require the full-time attention of no more than three staff (one systems librarian and two specialist operations staff, who also undertake operations on other systems), to supervise the computing equipment in a full-time capacity.

It is required that the system will be able to be easily configured to the requirements of the library without programming effort and that the system parameters be easily varied by library staff.

3.5 System location

It is expected that the server configuration will operate in a normal office environment and will not require a fully controlled environment. What is required in this climate? Will normal office air-conditioning be sufficient?

3.6 Backup and recovery

Efficient and rapid back-up and recovery facilities are essential and should require minimal technical supervision. Full transaction logging could be considered. Special importance will be given to the ability to backup the system and recover in a short time.

3.7 Workstations

The Supplier should indicate the hardware and if appropriate the software required for workstations, bearing in mind current standards.

3.8 Keyboards

The supplier should indicate the keyboards to be used bearing in mind the multi-script requirements of the library.

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3.9 Printers

Printers must be able to print in different character sets. Suppliers should explain how this will be achieved. (See Section 5.13.12)

3.10 System software

The choice of primary operating system will be left to the suppliers, but it is expected it will be a portable one.

3.11 Security

It must be possible for the system manager to have the facility to determine which operators are permitted access to specific modules and functions and also which functions are accessible at specific workstations. The OPAC module in particular must be highly secure, to prevent unauthorized access (either deliberately or in the event of a software error) to other parts of the system.

3.12 Application software

The Library expects the selected software package to conform to the latest standards and practices, for example client/server, relational database. Nevertheless, it is not advisable for the Library to take on a newly-developed package which has not been established and well proven in at least one library of a similar or larger size and with similar working practices. Parameters must be changeable by library staff without involving the supplier or programming effort.

3.13 Bibliographic and item files

A single central database to which all application modules have access is required. There will also be a need for separate databases for training, projects with other libraries etc.

It is proposed to create a union catalogue of library materials in the area. It should be possible for other libraries to search the system and see only records in their own collections.

It is highly desirable that the system will be totally on-line with all transactions being processed in real time with no need to update essential files overnight.

It is a mandatory requirement for the system to handle all the characters found in Asian, and in Western languages as well as in Cyrillic. Since UNICODE would seem to offer the best solution but since it is still under development, suppliers should indicate what the provisional solutions will be and how they expect these to be able to map to UNICODE when it becomes available.

The Library intends to make the database widely available through a range of media as well as providing on-line access and therefore requires a system which can support a MARC record structure including indicators, fields and subfields (with alphabetic and numeric subfield identifiers) and produce MARC exchange records either on tape or on-line. Since there is no national standard in the country or standard applicable in the Arab world it is recommended that the international MARC standard UNIMARC is adopted. Suppliers should bear this in mind.

3.14 Cataloguing

The primary objective is to support the creation and maintenance of MARC compatible records on-line. The library hopes to acquire records from other systems such as tapes from the British Library and the US Library of Congress, and CD-ROM databases etc.

The Library is also interested in the exchange of data with other major libraries some of which may use other bibliographic exchange formats like US MARC. The supplier should state what facilities exist for the conversion of records between formats in the software.

Though the system should be UNIMARC based, it should permit the addition of special fields for material such as museum objects for which UNIMARC fields are not yet available which could be converted to standard UNIMARC fields if required. It may also be required to add additional values to indicators. Additionally, it is felt to be desirable to include for public display linked to records of objects in the Museum records of books and other works which refer to them.

Records should be of variable length and able to contain large quantities of data if required, for example extensive notes and abstracts. For example, records of museum objects may include large amounts of text relating to their provenance. The nature of manuscripts and museum items will involve the use of multi-level (analytical) cataloguing in order to maintain and show the relationships between their units.

Authority control of specified headings is required so that the quality and consistency of the database is maintained. It must be possible to consult the authority file when entering data without leaving the record being catalogued. It must be possible to make use of previously created headings for names, subjects and titles whilst creating a new record, avoiding the need to re-key authoritative forms of headings. Sophisticated control over headings is required, permitting the creation of *see* and *see also* references, global changes to headings and the merging of multiple headings to one form. It should be possible to load authority files in an ISO 2709 format, specifically UNIMARC Authorities and US MARC Authorities. These records should be permitted to remain in the database even if they are not linked to any bibliographical record but they should not display in the public catalogue.

The Library expects to contribute records to a variety of external databases and to make its database generally available through a wide range of hardcopy and electronic media. This will require mechanisms to produce accessions lists and selective catalogues (e.g. a serials catalogue or a catalogue of materials on The country).

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The catalogue should be available for users whenever the library is open. Suppliers should recommend methods of ensuring a backup public catalogue.

3.15 Acquisitions

The acquisitions module should be fully integrated with the main database and not require the use of any other bibliographic files. Applications should support the normal range of acquisitions procedures, including pre-order searching, order creation and amendment, full fund accounting and the ability to cope with a large proportion of material acquired as donations or on exchange.

We also need to be able to record in the acquisitions file details of desiderata. It should be possible for certain users to be able to enter these records.

The financial requirement is not for a full accounts package but for fund accounting for management planning and information. The library wishes to record financial data at the item level (i.e. price, copies ordered, date received etc.) and the invoice level (i.e. invoice number, date of invoice, date sent for payment, credit notes requested, postage and packing charges etc.). Potential suppliers may if they wish recommend an accounting package which will cover all the requirements of the Library and explain how the library acquisitions module will interface.

Details of items on order must be available from staff workstations. It should be possible to determine on a case by case basis whether they will be seen within the public enquiry module. Circulation and reader services staff will require access to order data (on a read only basis) to answer reader enquiries and this must be possible from their normal workstations. It is expected that the suppression of data elements from public view will be alterable by the systems manager without programming.

3.16 Serials Control

The serials module should cover ordering, receipting, claiming of missing issues, fund accounting and binding control, with provision for the recording of items received as donations or exchanges.

Serial items are not all on open access and readers are required to request specific items to be delivered to them. This requires that all items are identified and accessioned so that users can unambiguously identify which issues are required.

There should be a mechanism for updating the holdings statement that is visible in the OPAC.

3.17 On-line Public Access

An OPAC facility is essential for users to identify the items they wish to consult. It is expected that they will be able to requisition items from closed access bookstacks via the OPAC module. For serials this will involve the display of clear details of which issues are in stock.

The OPAC module should not require individuals to be trained in order to be usable. It should preferably be menu driven or heavily prompted and not expect first time users to be familiar with a command language. Ideally it will use interfaces which are becoming widely used, such as Microsoft Windows and the World Wide Web.

The OPAC will be made available on the Library's network and externally via Internet.

3.18 Information retrieval

Although the OPAC module must be immediately understandable and simple to use, the Library has a requirement for more sophisticated access for staff and for researchers. This will involve the full use of Boolean operators to refine searches and the ability to search on-line a larger number of fields than might be available in the OPAC, such as notes, material codes, local fields etc.

For such users, the ability to refine searches and to store search strategies under distinctive names which can be traced to the creator is essential.

3.19 Circulation

The circulation module must support the requisitioning and delivery of items from a closed access collection where items are issued for use in the Library for a single day (i.e. they must be returned on the same day) but may be reserved in advance and for up to a week for repeated visits.

This will involve processing a requisition for an item which may be initiated from an OPAC or staff workstation, recording the delivery of the item to the reader and dealing with the book returns at the end of the day.

Many users are day visitors and rapid registration of these will be required.

Users of certain categories will be permitted to borrow certain items from the library. The system should support facilities to specify loan periods, renewal periods, overdue notices, recalls, reservations, according to reader category, location (closed or open access) and type of material.

The readers will be provided with a credit-card size ticket which will include their barcode with a photograph and should permit automatic access or deny access as appropriate to turnstiles situated between the public areas, the reading rooms, the closed access areas and the staff-only areas. RFID may be used as an alternative. These cards will also be used by staff.

3.20 On-line help and ease of use

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The system should be easy to use and not require excessive use of commands. Some library staff may use certain features very rarely and a menu or prompted interface is desirable to facilitate this.

Items need to be identifiable by numbers of different kinds. Readers should be identifiable by a code which can be easily registered manually and which will include a check digit.

3.20 Implementation of standards

The system should wherever possible implement standards. These range from AACR, through MARC to Z39.50 for interoperability of search and retrieve across systems and SIP2 for circulation, NCIP for Circulation and Inter-Library Loan and ISO ILL for Inter-Library Loan. Future developments should be outlined [HD]

3.22 Other application requirements

The Library requires the system to provide more than traditional bibliographic information services to staff and readers and is planning to develop .

Though the Library expects to acquire many materials in digital form and this should be taken into account in the proposal. It is essential that such images should be viewed from certain public workstations but it may be necessary to restrict their viewing from those workstations primarily intended for searching the catalogue.

A major objective of a computer system lies in the increased management control over data as an aid to decision making and achieving value for money. To this end, the library requires extensive reporting and statistical facilities to monitor how money and resources are being used, the usage of items at particular times of the day for example. The report generator should be usable by professional library staff with the minimum of training and should not require familiarity with traditional programming techniques.

3.23 Performance requirements

Appendix B gives details of the number and type of transactions which are expected. It is not possible to predict the transactions which will be generated by the public access workstations.

3.24 Maintenance requirements

The library will be open to the public:
Daily 0900 - 2100

The system will be required to be operational:

Daily

0800 - 2100

Maintenance will be required between the hours of 08.00 and 21.00 Daily and it should be possible to provide cover outside this period to meet unusual circumstances such as system upgrades which should be done outside this period.

3.25 Support, training and documentation

A primary requirement of the chosen system is that it should be well-supported since the Library will not be setting up a computer department. Consequently, a certain level of training will be required for selected library staff and the system chosen must have documentation which does not require computing skills.

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4 Timetable

4.1 The envisaged timetable for procurement and installation using the date of release of this draft Request for Proposals as the base (week 0) is as follows:

	Week	
1. Circulation of this document	0	
2. Receipt of suppliers' proposals by	6	
3. Complete evaluation and notify the shortlisted suppliers	12	
4. Complete demonstrations, visit reference sites, technical discussions	18	
5. Agree Memorandum of Agreement and finalize proposals	24	
6. Selection of system	26	
7. Installation should take place as soon as possible after {DATE}		

Demonstrations may take place from the time of the receipt of proposals

5 System requirements

Features which are mandatory requirements or require confirmation in the proposal are indicated by M, highly desirable by HD. It is the responsibility of the supplier to satisfy the Library that all mandatory requirements will be met.

The supplier will be required to explain how the various features will operate and will be required to demonstrate them; if any item is not available now as specified the supplier must state so and explain how they will meet the requirement.

It is expected that the system proposed will be a client-server system in which the server will implement the relational database model. As appropriate, suppliers should indicate how this will be achieved and should note any advantages that their solution will bring to the project.

5.1 System hardware configuration

5.1.1 The system should support a minimum number of workstations as follows [M]:

Workstations Printers

First phase

Second

It is expected that workstations will be Personal Computers attached to a network.

5.1.2 All workstations must be able to support fully the Latin and Asian character sets required by the Library, though if necessary a system console (if required) may be exempt from this requirement. (*See Section 5.13.12*). [M]

5.1.3 All workstations must be capable of having a slave printer attached to them. Proposals should indicate how many slave printers are recommended in the initial system. They must be capable of producing exact screen dumps [M].

5.1.4 Some of the system printers must be impact printers suitable for use with multipart stationery [M].

5.1.5 Some printers must be capable of producing camera-ready quality output.[M]

5.1.6 If the system requires one port per end user, twelve ports must be available for supporting access from workstations outside the library network. [M]

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5.1.7 One port must be available to support access via a modem and external telephone lines. [M]

5.1.8 The system must support the database sizes and transactions listed in Appendix A and B [M].

5.1.9 Suppliers should quote the expected delivery times from the date of order for all equipment proposed [M].

5.2 Network

5.2.1 Any network facilities provided must conform to the basic OSI seven layer model, in particular:
Physical layer [M]
Data link layer [M]

5.2.2 The network access protocol used for communication between workstations and the server should be stated and it should be stated whether this is compatible with TCP/IP.[M]

5.2.3 It would be desirable for a facility to be provided for any workstation (subject to authorization) to access external databases [HD].

5.2.4 Suppliers must describe in full the network topology they propose, including protocols, cabling and transmission speeds; whether multiplexing is used, whether communication is synchronous or asynchronous; whether the client software will reside on a network server or on the workstations and how client version-updates are envisaged [M].

5.3 Cabling and installation of system

5.3.1 The supplier must provide and install all cables and other equipment necessary to connect all components of the system (processors, workstations, communications equipment, printers etc.). [M]

5.3.2 The supplier must indicate how the software will be installed and whether the modules will be preconfigured or will be configured by staff before being able to use the facilities. [M]

5.4 Operation

5.4.1 The supplier must deliver and install a complete hardware and software package that requires no additional hardware and no local programming other than parameterization to become operational [M].

5.4.2 The supplier must state how many specialist computer operators will be required to run the system [M].

5.4.3 The supplier must state whether or not the proposed system can be run continuously. If it cannot, the supplier must explain the reason why the system must be closed down, and at what intervals. [M]

5.4.4 The supplier must describe in detail the steps involved in powering up and closing down the system.[M]

5.4.5 The supplier must state whether any processes, such as file or index update, security runs etc., must be carried out which involve logging off all workstations. These processes must be listed and described in detail.[M]

5.4.6 The supplier must state if any processes may not be run while the system is in on-line use, e.g. certain functions that require heavy access to many heavily used tables such as statistical reports.

5.4.7 It must be possible for the system supervisor to designate that certain tasks be run in background mode rather than on-line. [HD] These might be:

- Overdues
- Order printing
- Report production

5.5 Computer CPU and storage

5.5.1 The supplier must specify and propose the amount of data storage and central memory required to accommodate the volumes (a planned total of 5,000,000 titles) and transactions involved for all the functions in the proposal and to include in the configuration the necessary permanent storage to fulfill the requirements for those functions (*See Appendix A*). [M]

5.5.2 The supplier must define in detail the Relational Database Management System proposed.

5.5.3 The equipment supplied must be able to operate in a normal office environment without the need for air conditioning and suspended floors.[HD]

5.6 Backup and recovery

5.6.1 A removable data storage device must be provided to permit backups to be taken and software to be loaded.[M]

5.6.2 Any magnetic media proposed must be compatible with MARC tapes available from the Bibliothèque de France, Library of Congress and elsewhere.[M]

5.6.3 All transactions which change the database must be logged to tape or other secure medium to provide for backup and recovery in the event of system failure.[M]

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5.6.4 The supplier must indicate the time required to backup fully (using the supplier's recommended procedures) a single database of 5,000,000 titles, average size given in Appendix A and also the time required to reload and recover fully from the backup data in the event of failure necessitating the use of backup tapes [M].

5.6.5 The system must be capable of protecting itself in the event of power surges caused by electrical storms, such that there is minimum damage to hardware and that software and data are protected [M].

5.6.6 In the event of a momentary or prolonged power failure, the system must be able to continue to operate or at least shut itself down without data corruption. The supplier should make recommendations as to the hardware and software required to assure this[M]

5.6.7 The backup and recovery facilities must be easy to use, quick and effective. Suppliers must provide copies of the instructions currently in use [M].

5.6.8 It must be possible to recover completely from a system failure and restore all files and databases within 5 hours. [M] Suppliers must indicate the minimum period they would contract to for the complete configuration given in Appendix A.

5.6.9 Suppliers must indicate what methods in the event of a system failure for more than 10 minutes will be available for consulting the catalogue, and what backup circulation methods will be available.

5.7 Workstations

5.7.1 Workstations must have [M]:

- a) separately adjustable brightness and contrast levels
- b) provision to accommodate screen-mounted anti-glare filters
- c) screens which are adjustable for tilt and swivel
- d) a minimum dot matrix size for characters of at least 5 x 7
- e) a clearly visible cursor which does not obscure the character position
- f) a minimum screen size of 300mm measured diagonally
- g) a display colour which gives clear and legible characters.

5.7.2 The cables connecting the keyboard and the mouse to the workstation must be light, flexible and coiled and allow use of the keyboard and mouse at up to 1 metre from the screen. [HD]

5.7.3 The Library already owns a number of IBM and IBM-compatible micro-computers. It must be possible to use these either in exactly the same way as any of the workstations proposed by the supplier.[M]

5.7.4 Switching between access to the library system and use of the microcomputer locally or on a

different network must be by a simple command or step. [HD]

5.7.5 It must be possible to transfer data between workstations and the server. [M]

5.7.6 It must be possible for a PC to act as a terminal and to use the disc storage on the minicomputer as if it were a local PC storage device. Alternatively or additionally, the PC must be able to have access through a gateway to the disc storage on the Library's network.[HD]

5.8 Keyboards

5.8.1 Any keyboards proposed should be Asian/Latin and conform to the usual standards found in the country.

5.8.2 Any keyboards proposed must be detachable from the screen.[M]

5.8.3 The space bar must produce a space character in either shift.[M]

5.8.4 Keyboards should have a caps lock indicator.[HD]

5.8.5 A repeat facility should be provide on all cursor control keys.[HD]

5.8.6 A repeat facility should be provided on all character keys.[HD]

5.8.7 If any other functions are included on the keys in the numeric pad the keyboard should have a numeric lock facility.[HD]

5.8.8 For public workstations, control keys, cursor keys and other keys which are not used for searching and which can corrupt the display of data or otherwise interfere with searching must be disabled. [M]

5.9 Printers

5.9.1 It must be possible for the system manager to specify which printer is to be used when initiating a print.[M]

5.9.2 All printers must be able to print the Asian, Western and other character sets supported by the library package.[M]

5.9.3 All slave printers must be capable of being set up to print the character set displayed on the

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screen.[M]

5.9.4 Printers must be capable of handling a minimum paper width of 8.5 inches and of printing to a minimum print-line width of 80 columns. [M]

5.9.5 Samples of printout from proposed printers must be included in any reply to this Request for Proposals [M].

5.9.6 The noise level from any printer proposed must not exceed 55 dB.A measured in accordance with ISO 7779 or ECMA 74. The supplier must specify the standard used and state whether acoustic hoods will be needed to achieve this standard.[M]

5.9.7 At least one Postscript laser printer must be included suitable for word processing and desk-top publishing [M]. At least one system printer must be capable of 300cps [M].

5.9.8 It must be possible for the operator to specify that a report be output to a printer or the screen.[M]

5.10 System software

5.10.1 The system as supplied must include operating system software.[M]

5.10.2 The system software must provide concurrent support for printers, workstations, input-output devices, storage devices and the communications necessary to support the functions outlined in this Request for Proposals.[M]

5.10.3 All system utilities (except those specified by the system manager) must be capable of protection from use by anyone other than the system manager.[M]

5.10.4 The system must support a real-time clock facility which must present the time in a standard format (i.e. HH:MM:SS) and must present the date in a standard format (i.e. DD:MM:YY). This must be consistent across facilities.[M]

5.10.5 The supplier must describe the steps involved in restoring the operating system and applications programs after a complete systems failure and specify the time required.[M]

5.10.6 The software must provide performance monitoring facilities. Suppliers must state what these are and how they could be used.[M]

5.10.7 The supplier should state whether the system offers the facility to run on the server a version of UNIX, MS DOS or any other PC operating system, or Windows, alongside or below any proprietary operating system [HD].

5.11 Security

5.11.1 The system must provide a system of user identification codes and passwords to prevent unauthorized access to modules and routines. [M] The supplier should describe this.

5.11.2 It must be possible to configure the system so that any workstation can access only specified routines and this must be easy to reconfigure by the system operator [M].

5.11.3 Passwords must be at least 6 alphanumeric characters in length. They must not be displayed on the screen when logging in or in data entry logs. Users must be able to alter their own passwords. [M]

5.11.4 It must be possible to group user ID's to facilitate the application of capabilities.[M]

5.11.5 It should be possible for public workstations to be used without the requirement of a user password. This may be achieved by having a special user name and password for the purpose. Facilities with this password will obviously be limited, but it should be possible for a user with an individual user name, who is using a workstation which has been logged on with the special user name to enter certain functions (such as viewing the books on issue to him) by quoting his name and password. After leaving any such function, the user name should revert to the public user name.[M]

5.11.6 The system must log any invalid password attempts and after three unsuccessful attempts disable the workstation to that username.[M]

5.11.7 The system must ask the operator to enter a password whenever they begin a different process that requires authorization.[M]

5.11.8 There must be a facility for a workstation which is being used in a search module to be automatically logged off after a pre-defined period of non-use. This facility should depend on the location of the workstation (particularly needed for those accessed from the workstations of staff outside the operational area who may only access occasionally or those accessing from outside the Library) and the user accessing it. [HD]

5.12 Application software

5.12.1 If the system consists of separate application modules, they should operate together to provide a total integrated system. A new record or a record amendment need be input only once and the change visible to all modules. [M]

5.12.2 If the supplier is not in a position to continue to maintain or develop the software (through

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bankruptcy or any other reason) it must be agreed that the Library will have complete rights to maintain and develop the software for its own use in whatever way it wishes.[M]

5.12.3 Suppliers must state what contingency plans if any exist in the event of their going out of business [M].

5.12.4 Suppliers must state whether the software will operate only on the equipment proposed and state whether it is portable to other computers [M].

5.12.5 Suppliers must state how frequently application software upgrades take place. They must also indicate the procedures that take place when an upgrade is installed and indicate the amount of time the system is likely to be down [M].

5.12.6 The application software should provide on-line help as far as is applicable for staff functions (see 5.17.32 for OPAC help).

5.13 Bibliographic and copy files

5.13.1 There must be only one main bibliographic database including any associated indexes. All functions must utilize the common, integrated database. Nevertheless, it must be possible to set up by means of type of record identifiers categories of record which can be accessed only by particular user identifiers.

5.13.2 Bibliographic data must be stored in such a way that:

- a) UNIMARC and US MARC records can be loaded from external databases, either from standard MARC tapes or from ISO 2709 files on diskette or on CD-ROM [M]. It is desirable that it should be possible to do this with data in the CCF [HD].
- b) Records can be created on-line with correct and full UNIMARC tagging [M].
- c) All records can be output on to tape and via communications lines such as Internet in tagged UNIMARC or US MARC format without loss of data definition.[M]

5.13.3 The system supplied must accept the existing files of CCF records converted from the CDS/ISIS system transferred from the Novell network or on diskette. Examples are given in Appendix C. The system supplier must arrange for the conversion of these records and their loading into the system prior to acceptance of the system. All separately coded elements of data must remain distinct when the file is loaded into the system and thereafter. [M]

5.13.4 The following methods of adding records from external sources must be available in addition to those applicable to UNIMARC records mentioned in 5.13.2.:

- a) Loading of records from diskettes retrieved from on-line systems: this should be achieved by a table-driven routine in which the table can be amended by the system librarian [M]
- b) Loading of records from CD-ROM [M]

5.13.5 It must be possible to set up separate independent bibliographic databases if the library wishes (for example training databases, the database of another library, desiderata, etc.).[M]

5.13.6 The supplier must indicate what memory and storage overheads will be involved if separate bibliographic databases are created and whether applications software will need to be duplicated [HD].

5.13.7 If the system comes with a built-in field structure or structures, suppliers should provide a complete list of types of records and the fields they contain, giving at least the following information:

Maximum length (if any)

Mandatory/optional

Data type (e.g. alphanumeric, numeric, date)

Free text or coded data

Permissible characters (e.g. punctuation)

5.13.8 It must be possible to allocate a status code to any bibliographic record to indicate whether that record has been checked as being of a suitable standard for the OPAC. This code must be capable of automatically being changed when certain processes take place (such as being edited by the supervisor using a certain user id). [HD]

5.13.9 Any changes to the database must be recorded immediately and update the database and indexes in real time, though there may be a facility to suppress on-line indexing for certain functions, such as batch data entry.[M] Suppliers should detail when any such suppression is used [M].

5.13.10 All modules accessing bibliographic files must have access to the same core search facilities to retrieve material for processing of any kind. [M]

Copy information

5.13.11 The following copy specific information must be provided, which, where appropriate, must be entered automatically by the system or where that is not possible, entered in coded form for ease of entry:

Library code (since the catalogue will be a union catalogue)

Accession number

Shelf location (including closed access)

Copy status, e.g.

Lost/missing

Reference only

On loan

On order

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In process
Trapped for library purpose (e.g. rebinding, indexing)
Hidden from the public catalogue

It must be possible to create a textual description of any codes for display. [M]

Character set

5.13.12 The system must support an extended character set beyond the basic ASCII range covering at least the following languages: Urdu, Persian, Latin (including French, German, Italian, Spanish, Portuguese, Danish, Norwegian, Swedish, Icelandic, Slovenian, Croatian), Coptic, Greek, Cyrillic. Suppliers should state how these character sets achieve compatibility with the standard UNIMARC methods of holding characters. [M] A list of the characters supported must be supplied. (See appendix E).

5.14 Cataloguing

Record creation

5.14.1 The system must support the creation and amendment of bibliographic and copy records on-line and in real time. [M]

5.14.2 Bibliographic records must be able to be displayed and output (via communications links and on tape) in both UNIMARC and US MARC format conforming to the official tagging standards and including the possibility of both alphabetic and numeric subfield identifiers. The specification for the format should be in a table and the table should be capable of definition by a librarian without knowledge of computers. [M]

5.14.3 The support of MARC-compatible cataloguing and the fields supported must be updated in step with any changes to those standards. Suppliers must indicate their commitment to this. [M]

5.14.4 When loading records from external sources the system should: [M]

- a) validate control numbers
- b) establish presence of any mandatory fields
- c) check for duplication of titles already on the database
- d) remove unwanted fields of data

5.14.5 Records already created by the acquisitions module must be accessible for amendment (or overwriting by imported records) within the cataloguing module without the need for the system to copy the record. [M]

5.14.6 As a record is being entered, the system must check automatically that record being created does not already exist in the database and must give a warning that may be overridden.[M]

5.14.7 As the operator enters data the record should be displayed in a cumulative manner so that fields just created are visible.[M]

5.14.8 Indicators and subfield tags must be assigned automatically where possible [HD].

5.14.9 All data tables for coded data fields (e.g. valid values for 008 fields) must be able to be amended by the systems librarian without involvement of the supplier [HD].

5.14.10 Standard control numbers which include check digits (e.g. ISBN, ISSN) must be validated. However, it must be possible to override this and allow an invalid number to be entered if necessary. It should be borne in mind that some UNIMARC fields have alternative subfields for the storage of invalid numbers [M].

5.14.11 It must be possible to create or amend copy information directly after the completion of the bibliographic data. [M]

5.14.12 The cataloguer must be able to duplicate an existing record, when cataloguing a second edition for example. The copied record must not include the copy information from the original though it may display it in a temporary field.[M]

5.14.13 On creation, records must be added to the database immediately and be accessible for retrieval via all modules.[M]

5.14.14 The bibliographic and copy records must include a field to indicate who created or last amended the record (plus the date), and this must be maintained automatically.[M]

5.14.15 It must be possible for a supervisor to review (either on-line or in printed form) all newly created bibliographic records. It must be possible (but not mandatory) to prevent these from being added to the catalogue by giving a particular status to the user names of the cataloguers. These records will then be automatically upgraded when accessed and approved by the supervisor.[HD]

5.14.16 It should be possible to create copy specific free text notes.[HD]

Cataloguing data

5.14.17 The system must specifically support (using MARC or MARC-compatible tagging) the cataloguing of the following types of material [M]:

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Monographs

- Serials
- Rare books
- Audio visual materials
- Engravings, prints and drawings
- CD-ROMs, both monographic and serial
- Contents of information files
- Photographs
- Posters
- Museum objects

It should be possible to associate full text files and images and sound files with a bibliographic record. [M]

5.14.18 It must be possible for staff to create without the assistance of the supplier additional local bibliographic fields which will be assigned specific MARC field tags and to specify whether the fields will be indexed and/or under authority control.[M] It is desirable that it should be possible to change the permitted values of indicators from the standard UNIMARC values [HD].

5.14.19 It must be possible for staff to make free text searches on fields which have not been selected as indexed fields. (*see Sections 5.17.7 and 5.18.2*), although it will be acceptable that this is done only by the system supervisor and that the search may need to be done in batch and possibly when the system is shut down from normal usage.[M]

5.14.20 It must be possible to specify which fields are mandatory within any type of bibliographic record.[HD]

Analytical records

5.14.21 The system must support full analytical cataloguing, suitable for indexing journal articles and analytical cataloguing of monographs. [M]. It must also be possible to catalogue journal articles as single items with a host statement. This will be needed particularly for records converted by retrospective conversion or from other sources [M].

5.14.22 Analytical cataloguing must support a hierarchical linking of records in a parent/child relationship.[M]

5.14.23 Analytical records should contain all the permitted fields defined in the UNIMARC format and may have additional fields which are not found in the appropriate standard format.[HD]

5.14.24 It must be impossible to delete a record whilst there are any less inclusive hierarchical records associated with it. The system must indicate which other records need to be deleted before a record itself may be deleted.[M]

Record amendment

5.14.25 There must be a simple method of amending records and deleting bibliographic and copy data.[M]

5.14.26 Whilst a record is being amended, other users must be able to retrieve the record but on a read-only basis. It must be impossible for two users to edit the same record at the same time.[M]

5.14.27 It must be possible to amend and upgrade order records which have been created in the acquisitions module.[M]

5.14.28 A user with editing capability must be able to retrieve records for amendment via any of the following [HD]:

- System control number
- ISBN
- Title words
- Author names
- Accession number
- ISSN

5.14.29 The retrieval process must use the same techniques as the general enquiry module.[M]

5.14.30 The retrieved record must be displayed in full and it must be possible to change the format, for example to produce a format resembling the worksheet or one using an AACR type display.[HD]

Authority control

5.14.31 Authority control must be provided for the following headings, with new input being checked against the authority control heading[M]:

- Names (personal, corporate, and conference)
- Uniform and collective titles
- Series titles
- Serials (Periodicals) titles
- Subject headings

5.14.32 The authority control system must allow headings from the authority file to be added to new bibliographic records without the need for rekeying.[HD]

5.14.33 It is desirable that it should be possible to leave the bibliographic file and by a separate procedure retrieve and amend a record from the authority file. It should be possible to limit this feature to certain users.[HD]

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5.14.34 A single change to the authoritative heading must affect all items which have that heading as an attribute.[M]

5.14.35 It must be possible to load from tape or CD-ROM authority headings in advance of any bibliographic items. [HD]

5.14.36 The authority system must include related terms, use for and see references [M]. It should also be stated whether a thesaurus structure (broad, narrow and related terms) will be available for subject headings (this may be required in the future) [HD].

5.14.37 The system must validate to ensure against blind references, unmatched *see also* references etc.[HD]

5.14.38 It should be possible for the system manager to specify which fields will be subject to authority control.[HD]

5.14.39 It should be possible to merge two headings to one in an easy operation and for all items at the non-preferred heading to be assigned to the preferred heading.[HD]

5.14.40 It should be possible for a supervisor to review (on-line or in printed form if required) all newly created and amended authority headings.[M]

Accession lists

5.14.41 It must be possible to produce a list of newly catalogued items, at times specified by the library. Items for inclusion should be selectable by date of cataloguing and by an indicator set by the cataloguer (but subsequently changeable) at the time of cataloguing. When an item has appeared in an accessions list, the date of creation of that list should be added to the record and it should be excluded from subsequent ones. [M]

Externally produced catalogues

5.14.42 There should be facilities for producing output from the system for the external production of printed catalogues (for example by typesetting, microfiches or CD-ROM).[HD]

It should be stated what kinds of indexes can be generated and which fields can be/would be indexed.[HD]

Printed catalogues

5.14.43 It should be possible to print the selected records directly on any of the system's printers or output to tape in either print format (for printing or microfiche production), HTML or exchange MARC format.[M]

5.14.44 It should be possible to select and print listings of bibliographic records together with any associated analytic records, with the analytic records following the parent records to which they relate.[M]

5.14.45 Default filing order of headings and sub-sorting must be by standard library filing rules. Suppliers must indicate which rules have been implemented. [M]

5.14.46 It must be possible to order records by any chosen field or fields (up to a maximum of 5) in the record or by fields in other records to which a link is made. [M].

Exporting data

5.14.47 It should be possible to export data in the ISO 2709 format using UNIMARC or US MARC tagging, either in standard tape format or as an MS-DOS file. This is to enable data exchange with systems which cannot easily accept data in any other form. [M]

5.14.48 The system should both allow the exchange of data using the character set of the system **and** convert data for export into the appropriate standard character set as defined in the documentation relating to any exchange format that is implemented [M].

5.15 Acquisitions

any of the requirements of monograph acquisitions are the same as for serials; the two modules, acquisitions and serials should be integrated to the greatest possible extent. It is likely that certain kinds of material, e.g. donations, museum material, rare books, will not be acquired through this module, so it is essential that this module can be by-passed and data entered immediately by the catalogue module.

5.15.1 The system must provide for order creation, receipts, order amendment and cancellation, and financial control.[M]

5.15.2 All activities in the acquisitions module must be done in real-time; any data creation or amendment must take immediate effect.[M]

5.15.3 It must be possible for order details to be displayed to other users (e.g. staff enquiry), without the need for the operator to change modules. [M]

Pre-order searching

5.15.4 Pre-order searching must be possible using the standard searching facilities of the enquiry module without leaving the Acquisitions Module [M].

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5.15.5 The system must be able to search for items in stock and on order at the same time [M].

5.15.6 There should be procedures to accept UNIMARC or US MARC records electronically via tape, floppy disc, CD-ROM or on-line from bookseller databases into a desiderata file. [HD]

5.15.7 The operator should be able to scan on-line or in a listing those items which have recently been added to a desiderata file and select titles to be ordered.[M]

Order creation

5.15.8 If a title is not in the bibliographic file, it must be possible to create a bibliographic record as part of the order process [M].

5.15.9 It should be possible to enter minimal bibliographic details (these could include any MARC field) for order purposes and update the record at any time, either in this module or in the catalogue module [M].

5.15.10 When ordering additional copies of items already in stock, the system should use the existing bibliographic data [M].

5.15.11 The system should check for duplicates on order, so ordering of second copies should be achieved by using the existing bibliographic record [M].

5.15.12 Entry of bibliographic data should use the same procedures as the cataloguing module, and be subject to the same checks and use of authority control procedures, which may be overridable if required [M].

Order data

5.15.13 The following order-specific fields must be available in addition to the bibliographic data [M]:

- Order number (automatically assigned)
- Date of order (automatically generated when sent)
- Order type (purchase, standing order, donation, exchange etc.)
- Supplier
- Currency
- Urgency status
- Due date
- Number of copies
- Committed price
- Actual price
- Actual price (local currency)
- Source (of bibliographic data)
- Message to supplier
- Requester
- Fund code

Notes for library use

All the above data must appear (if required) together with selected bibliographic data in the order as dispatched to the supplier.

5.15.14 The system must support the following order types:

- Firm orders
- Standing orders
- Gifts
- Monographic sets/series
- Prepayment orders
- Exchanges
- Approvals
- Bequests
- Subscription orders

Each type of order must be separately identifiable and separate procedures should be available for the different types. [M]

5.15.15 The system must be able to handle any currency and any rate of conversion to local currency and display the name of the currency alongside the numerical value. [M]

Order dispatch

5.15.16 (HD) Orders should be printed at any time at the instigation of an authorized operator. It should be possible to print [M]:

- All orders
- All orders for a specific supplier
- All urgent orders

5.15.17 It must be possible to print orders on preprinted forms on any designated printer which will take such forms [M].

5.15.18 The content and layout of the printed orders should be specified by the library and be easily changed without the assistance of the supplier [M].

5.15.19 It should be possible to transmit orders electronically, using EDI standards via Internet, the telecommunications system, or industry standard magnetic tape or floppy disc [HD].

5.15.20 There should be an easy-to-use mechanism to reprint orders which have failed to print correctly due to printer/paper malfunction [M].

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Supplier

5.15.21 The system should accept library-defined supplier codes or the full name. If no supplier is entered, the system should default to the supplier used for the previous order in the same session. [M]

5.15.22 If the supplier is not on file, it should be possible to create a record in the supplier file and return to the current order [M].

Urgency

5.15.23 It should be possible to specify the number of weeks to allow for delivery before the item is flagged as overdue. A normal and urgent level are desired; these should be related to the supplier concerned, with a default if not specified for that supplier [HD].

Due date

5.15.24 A due date should be calculated based on the supplier and the urgency of the order. It should be possible to override it with another date [M].

Fund code

5.15.25 It should be mandatory to assign the committed expenditure to any of the predefined fund codes.

Reader requests

5.15.26 It should be possible to input to the order a name and address, or the reader number as valid within the circulation module, so that a notice can be sent to the reader to indicate that the item has been received and is available for loan. [M]

Order amendment

5.15.27 It must be possible for selected operators to amend any bibliographic data via the acquisitions and cataloguing modules; conversely, it should not be possible to amend acquisitions data from these modules. [M]

Receipting

5.15.28 The identification of items should be by the following: [M]

- Order number
- ISBN
- ISSN
- Title (plus keyword access)
- Author

5.15.29 The system should display all matching outstanding orders to allow the operator to select the order which is to be receipted. [M]

5.15.30 The system should alert the operator if the billed price varies from the order price by more than a specified percentage [M].

5.15.31 It should be possible to record receipt prior to or after recording the receipt of the invoice [M].

5.15.32 The following data must be supported [M]:

- number of items received
- date received
- free text notes
- invoice number
- invoice date
- billed cost
- actual cost (Sterling)

5.15.33 The status of the bibliographic record must be automatically changed to indicate item is in process rather than on order [M].

Bookseller reports

5.15.34 The system must support the addition of supplier reports on outstanding orders (e.g. reason for non-availability, delay etc.) [M]. The supplier should state to what extent current EDI reporting standards are supported, bearing in mind that this is an expanding field [M].

Order cancellation

5.15.35 It must be possible to generate cancellation notices for dispatch to the supplier [M].

5.15.36 The system must detect and handle receipt of items after cancellation [M].

5.15.37 Order cancellation must automatically adjust the relevant fund accounts [M].

Exchanges

5.15.38 For items received on exchange, it should be possible to record [HD]:

- Supplying library or institution
- Estimated value
- No. of pages (for a different kind of valuation from price)

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Invoice recording

5.15.39 The system should enable general invoice details to be recorded and maintain a relationship between the individual charges and the general invoice details. The system should support the recording of invoices with the following data [M]:

- Invoice number and date
- Supplier
- Amount
- Surcharges, postage, discounts etc.
- Date sent for payment
- Internal reference number
- Free text notes
- Credit note awaited

Management accounting

5.15.40 The library should be able to specify a reasonable number of fund codes which may be given a mnemonic value if required [HD].

5.15.41 It must be possible to indicate the fund code to be debited for each item ordered [HD].

5.15.42 It must be possible to assign amounts to fund codes and to amend them during the financial year [HD].

5.15.43 It must be possible to view the current state of all or specified fund codes both on-line and in printed form, showing amounts committed, spent and balance remaining [HD].

Desiderata file

5.15.44 The system should support a means of keeping track of items which the library wishes to obtain but which are not available. When an order is canceled, the system should ask if the record should go into the desiderata file [HD].

5.15.45 Records should be displayed under similar circumstances to records of items on order or in process, and should be indicated as desiderata [HD].

Reports

5.15.46 The following standard reports are required [HD]:

- a) analysis of fund, commitment, expenditure and percent spent for all or selected fund codes.
- b) count of items received by type by week and by month
- c) orders placed (number and value) by supplier by week and by month

d) titles on order by supplier

5.15.47 The supplier should indicate what other reports are available, e.g.: average supplier delivery time by supplier by week and by month; for items received on exchange, a list by supplier giving number received and total value; lists of items acquired in a given period with cost greater than £50 (and whether the figure would be amendable by staff); books received from suppliers in a specified country in last year, giving total value; total amount spent in each foreign currency in a specified period [HD].

Supplier file

5.15.48 The system must include a supplier file with a facility for adding and amending details of a minimum of 500 suppliers [M].

5.15.49 The supplier file should include [M]:

- Library-defined ID (coded)
- Name
- Address
- Telephone, telex, fax and electronic mail numbers
- "Invoice to" address
- "Deliver to" address
- Supplier's account or reference number
- Library account or reference number
- Currency
- Standard message
- Delivery times for urgent and normal orders
- Notes

Overdues

5.15.50 A list or report of orders past the due date must be available in a format which can be dispatched to the supplier [HD].

Order enquiry

5.15.51 It must be possible for a user with appropriate authority to enquire on-line on the order details of any order outstanding or in process at any workstation [HD].

Year end and Archiving

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5.15.52 At the end of the financial year, financial data must be able to be manually easily reset to zero and outstanding commitments carried over automatically to the next financial year [M].

5.15.53 Order data must be retained on-line in case further analysis is required [M]. Suppliers must state if it is possible to archive order data to external storage and if so it must be possible to reinstate archived order data [HD].

5.15.54 It should be possible to commit expenditure to either the current or the next financial year. It should be possible to split the expenditure for a single order over two financial years [HD].

Dispatching of items for exchange partners

5.15.55 The library may wish to dispatch copies of publications (e.g. the newsletter) to exchange partners. The system should perform the following functions [M]:

a) allow the creation and amendment of a database of records of exchange partners:

Name

Address

Category code

b) select the institutions to receive item, based on their category code

c) produce address labels

d) record on the institutions' records the publications sent and their value

e) Indicate whether these partners are also in the vendor file

5.15.56 It should be possible to copy the records of the exchange partners from other databases or authority files [HD].

5.16 Serials control

5.16.1 The system must provide a serials control facility capable of the following functions [M]:

ordering

check-in with automatic forecasting of latest issue

claiming missing and overdue copies

binding control

fund accounting

These functions should incorporate identical functions from the monographs acquisitions module where appropriate (e.g. EDI). If any facilities available in the acquisitions module are not available for serials they should be stated here [M].

Pre-order searching

5.16.2 There should be provision to search the bibliographic database using the standard library enquiry facilities to establish whether or not a title is already on file, without leaving the serials control module

[M].

Order creation

5.16.3 If a title is not in the bibliographic file, it must be possible to create on-line a bibliographic record as part of the order process. The system should support the on-line creation of bibliographic details following the same processes as in the cataloguing module, with the same use of authority checking [M].

5.16.4 The system should automatically check for potential duplicate orders by:

- Title
- ISSN
- Publisher
- Vendor

Order data

5.16.5 The following order-specific fields must be available [M]:

- Order number (automatically assigned)
- Order date
- Order type
- Number of copies
- Currency and committed price
- Location (though not actually used at present)
- Frequency
- Starting issue
- Supplier
- Account number
- Fund code
- Notes for library use
- Notes to the supplier

5.16.6 The system must support at least the following frequencies as well as having a facility for irregular serials [M]:

- Daily
- Daily except one day
- Monday to Friday
- Saturday to Thursday required? any other Arab world requirements
- Weekly
- Fortnightly
- Monthly

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Bimonthly
Quarterly
Termly
Biannual
Annual
Biennial

5.16.7 The system should allow the creation of additional frequencies for individual serials (e.g. title is published monthly but not in August) [HD].

5.16.8 The system should be able to handle the following order types [M]:

Purchases
Sample requests
Donations
Exchanges
Memberships
Back runs of serials

5.16.9 The system should be able to handle the following circumstances [M]:

Changes of title
Re-publication of a defunct title
Two titles with the same name

Order printing

5.16.10 The system should produce renewal orders for dispatch to suppliers [M].

5.16.11 The library should be able to specify the content and layout of the order [M].. It should be possible to send a differently worded reminder for each of the categories in 5.16.8. [HD]

Check-in

5.16.12 The operator must be able to identify serials to receipt by any of the following [M]:

Order number
ISSN
Title (keyword access or truncated title)

5.16.13 The system should calculate the expected volume, issue number and date of expected issues, and where the appropriate volume arrives correctly, check-in of the issue should need a minimum of key strokes [M].

5.16.14 The system must automatically record the date of receipt on the item record [M].

5.16.15 The system should automatically identify and warn of missing and overdue issues and these

should be flagged as such and able to be claimed [M].

5.16.16 It should be possible to check in unexpected issues and indexes, title pages, supplements, and these should be capable where appropriate of being treated as serials in their own right, but linked to the record of the main serial [M].

5.16.17 The system should be able to cope with the following situations [M]:

- a) series within series
- b) alphanumeric or unusual numbering systems
- c) mis-numbered items
- d) imperfect items
- e) duplicates
- f) serials which change frequency

5.16.18 The system should display the notes for library use at the time of check-in [HD].

Exchanges

5.16.19 The system should permit the printing of lists of titles received arranged by exchange partner [M].

Routeing

5.16.20 The system should allow the creation of a routeing list at the time of order or subsequently [M].

5.16.21 It should be possible to enquire on-line which journals are being routed to specified individuals [HD].

5.16.22 It should be possible to delete a person from all routeing lists in one operation [M].

5.16.23 The system should print routeing lists at the time of receipt or afterwards at the discretion of the operator [HD].

Claiming

5.16.24 The system must have provision for identifying issues not received and printing claim notices for dispatch to the supplier [M].

5.16.25 It should be possible to review on-line those issues flagged as overdue or missing and for the operator to specify whether to suppress the claim. The system should record the date of the claim [M].

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5.16.26 It should be possible to produce a list of missing and overdue issues in a form suitable for dispatch to the supplier, to include library-defined text [M].

Invoice recording

5.16.27 The system should support the recording of invoices with the following details [M]:

- Supplier
- Date of invoice
- Invoice number
- Title
- Amount and currency
- Period to which payment relates
- Vote code
- Date sent for payment
- Internal reference number
- Credit note number
- Free text notes

Binding

5.16.28 Suppliers should state what arrangements the system has for binding control [HD].

Management accounting

5.16.29 The system must maintain details of commitments and expenditure for serials currently on order, supporting the same fund code structure as in the Acquisitions module, but maintaining separate analyses for serials [HD].

5.16.30 It should be possible to produce financial commitment forecasts based on current orders [HD].

Desiderata file

5.16.31 There should be provision to record any issues that are missing/overdue/out-of-print as desiderata [HD].

5.16.32 It should be possible to add individual items to this file manually [HD].

5.16.33 It should be possible to produce a list of items in a form suitable to be sent to suppliers/other libraries [HD].

Enquiries

5.16.34 It should be possible to enquire on-line on [M]:

- a) titles on order by supplier
- b) invoice number
- c) specific title

Reports

5.16.35 The system should be able to produce the following reports [M]:

- a) all serials currently received
- b) all serials with holdings (or first issue and missing issues)
- c) all serials on order by supplier
- d) all serials on order by country of supplier
- e) new orders by requester
- f) expenditure in current year arranged by fund code

5.16.36 It should be possible to produce ad hoc reports using any data from the serials control module (e.g. missing items claimed more than N weeks ago but still not received; lists of serial titles received on exchange or as donations; list of suppliers of items sent on exchange or as donations) [HD].

5.17 On-line public access

5.17.1 The system must have a state-of-the-art OPAC module which can be used by users of the library, without prior training and without the need to know a command language. The system should make use of standard interfaces such as Windows and HTML and be available from different kinds of hardware, such as PC's and Macintoshes. Suppliers should state the interfaces available [M].

5.17.2 It should be possible to display an introductory screen with library-defined text suitable for displaying messages to readers (opening hours etc.). This should be variable depending on user name so that different classes of user can have different messages (e.g. Library staff, internal readers, external users via modem or Internet) [M].

Workstations

5.17.3 The workstations used by the public must have the following features over and above the requirements listed in Section 5.7 and 5.8 [M]:

- a) No fan or noise producing features
- b) On/off switch and other switch settings must be capable of disablement if not required during searching. If this is not possible, the system should remain logged on even when the workstation is switched off.

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- c) Control keys, cursor keys and other keys which are not used for searching and which can corrupt the display of data or otherwise interfere with searching must be disabled
- d) If a workstation is not used within a time period definable by the systems librarian, it should reset to the introductory screen and display the standard OPAC message.

5.17.4 It must be possible for the system supervisor to designate specific workstations and ports to use the OPAC module. It must then be impossible for those workstations/ports to have access to any other part of the system (including the operating system) either deliberately or by accident [M].

Multiple databases

5.17.5 It must be possible to provide access through the OPAC module to more than one database and for the user to specify which database to search [M].

5.17.6 It must be possible for users to restrict their search to portions of the main bibliographic database. These restrictions should be linked to user name and each user should be offered a default restriction which could be changed if desired [M]. These might be:

- Library only
- Museum objects
- Rare books only

5.17.7 It should be possible for the system to transfer a search to other Z39.50 compliant servers [M].

Access points

5.17.8 The system must allow access to the following fields [M]:

- Personal names whether authors or subjects; in the case of some Asian names in direct order, in the case of Western names, family name, initials/forename
- Corporate names
- Conference names
- Titles
 - main and subtitle
 - uniform
 - collective
 - series
- Subjects - subject headings (controlled)
 - names as subjects
- Classification/shelf mark
- Control numbers - ISBN
 - ISSN
 - Other control numbers

- Accession number

The following criteria should be available to further define a search

Date of publication
Language

It must be possible for a user to search without specifying the field by any means, name mnemonic, identifier [M].

Searching

5.17.9 The system must permit users to search the database without the need for training and must employ a menu structure or prompts to assist users [M].

5.17.10 The system must remain within the same search type (e.g. author search, title word search) at the end of a search, prompting the user for another search of the same type [HD].

5.17.11 There should be a facility to browse through a list of index terms before making a selection of item(s) to be retrieved. This should lead with a minimum of keystrokes to the record required [M].

Retrieval

5.17.12 The supplier should state what the system does when a user searches on a term which is non-preferred and what the system does with *see also* references [M].

5.17.13 If there is one item or more which exactly matches the user's search, only those records should be displayed. If there is no exact match, the system should display index entries or brief records for any items which partially match [M].

5.17.14 It is desirable that the user can ask to see partial matches even though an exact match is obtained [HD].

5.17.15 When selecting a range of records, the user must be able to return to the list after viewing an individual record [M]

Related searches

5.17.16 It should be possible at the display of a full record for the user to look at related items via one of

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the fields in the current record (i.e. having located a book by title to see other items by the same author, or having retrieved by subject to see other items at the same classmark). Related searching should be possible by [M]:

- Name (personal and corporate)
- Series
- Subject
- Dewey Decimal Classification

5.17.17 It should be possible for the user to navigate up and down archival hierarchies [M].

Keyword access

5.17.18 The system must support keyword access to at least the following fields:

- Names
- Titles
- Subjects

In the case of subjects, it is desirable that whenever a set of terms are displayed having been retrieved by a keyword, the display should be made in a KWIC (keyword in context) format, the terms including the keyword being displayed in alphabetical order, with the keyword aligned in the middle of the display.

Stopword lists

5.17.19 'Stopword lists' of keywords not used for retrieval must be employed and be definable and alterable by the library. It must be possible for different lists to be applicable to different fields. These words must be completely ignored in retrieval, e.g. users must not have to know to avoid them, though the system will have to avoid searching on them. The supplier must indicate if there are any restrictions on the stop-word list. [M]

Refining searches

5.17.20 If the search retrieves more than a set number of titles, it must be possible to ask the user to reduce the number by using further terms [M]:

- either additional terms of the same type
- or terms from another field

Suppliers should state what methods their system has to cope with the load on the network of large quantities of records being transferred between client and server.

5.17.21 It must be possible to retrieve characters outside the basic ASCII set on a standard workstation via their basic ASCII equivalents [M]

- e.g. é retrievable as e.

The user must not have to differentiate between accented characters and their non-accented form.

{Other Arab requirements to be included here}

Displaying records

5.17.22 It must be possible to browse backwards and forwards through the records [M].

5.17.23 It must be possible to determine the order in which records are displayed on the screen [M]. Suppliers should indicate the possibilities here in detail.

5.17.24 It must be possible to set up the system so that the user can change format easily, e.g. between a brief or full form. A user profile should include a the possibility of a default format for each user [M].

5.17.25 A display of a full record should be given when requested by the user. It should contain: [M]
bibliographic description
copy specific information
on loan/on order/in process/at binding information
holdings details for serials

5.17.26 It must be possible for the user to request a printed copy of the records retrieved, but this should be limitable by user name [M].

5.17.27 It must be possible for the user to request a copy in machine readable form on diskette of the records retrieved, but this should be limitable by user name. Suppliers should state in what format these files are available, e.g. MARC, comma delimited format, etc. [M].

5.17.28 It must be possible for the library to specify the order in which fields are displayed to the user [M].

5.17.29 It must be possible for the system supervisor to be able to program print formats [M].

5.17.30 It must be possible to display visual images or sound recordings linked to bibliographic records and display them when the associated bibliographic record is retrieved.

User help

5.17.31 A single key, for example a function key, must be available for the user to request a display of help text [M].

5.17.32 Help text must be context dependent and relate only to the screen or procedure where the user has requested help. There should be a standard way of returning to the system after requesting help [M].

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5.17.33 It should be possible for the library to create and edit the help texts [M].

5.17.34 It should be possible for the user to 'exit' and return to the start of a new search at any time during a search [M].

Access for other workstations

5.17.35 The system should be able to be accessed by Z39.50 client software.

5.17.36 It must be possible for workstations outside the library network to use the OPAC module (see 5.2.4) [M]

5.17.37 It should be possible for remote workstations to use the OPAC module via Internet. Suppliers should state whether external users will be able to use the standard client and if not how the search software available to external users differs [M].

Statistics

5.17.38 The system should produce a daily statistical report of the number of searches done by type of search on each workstation. Figures should be cumulated monthly and yearly. These should be capable of suppression from printing [M].

5.17.39 It should be possible to record all OPAC transactions in a transaction log for further analysis. It should be possible to restrict the log to specific workstations and to run it only when required [HD]. Suppliers who can provide this should illustrate the kinds of analysis that can be done on these files.

5.17.40 It should be possible to calculate a charge for each user, based on CPU time and/or elapsed time [M].

5.18 Information retrieval and (advanced) enquiry

5.18.1 The system must provide more extensive searching facilities (beyond that provided in an OPAC module) for use by library staff and the supplier must list the search facilities provided [M].

5.18.2 The system must provide for all fields (including indexed fields) a free text searching option for experienced users and library staff, giving on-line access to all data fields in the bibliographic record. [M] This may be available only as an off-line search. If it is available on-line, suppliers must indicate what safeguards exist to prevent a user from slowing down the system for other users or blocking a workstation for an extended period of time.

5.18.3 The use of the Boolean operators *and*, *or* and *not* should be available [M].

5.18.4 It should be possible to truncate keywords using a designated symbol [M].

5.18.5 It should be possible to indicate word adjacency by using a designated symbol [M].

5.18.6 It should be possible to display the search sets created during a session and to combine previously retrieved search sets using Boolean operators. [M]

5.18.7 It should be possible to save search strategies for later execution [M]. There should be a library-defined limit to the number of searches saved in this way [HD].

5.18.8 Saved search strategies should be specific to individual users and the system supervisor should be able to delete those searches for readers who are no longer users or searches which are no longer 'valid' for any other reason. The system should keep track of when saved searches have been used and make a report of searches not used since a specified date [M].

5.18.9 Users should be able to review saved search strategies and delete any as required [M].

5.19 Circulation

5.19.1 The circulation module must include facilities for the loan of items to appropriate categories of reader as well as the requisitioning and delivery of items from a closed access collection. This includes:
functions for users to indicate which items (monographs and serials) they wish to use [HD]
mechanisms to control the retrieval of items from the closed access shelves [M]
issue facilities to indicate delivery of items to the readers [M]
return procedures during and at the end of the day [M]

5.19.2 The supplier must supply workstations which allow readers and items to be identified either by direct keying or by scanning of a machine-readable barcode or an RFID tag [M]. The readers will be provided with a credit-card size ticket which will include their barcode with a photograph and should permit automatic access or deny access as appropriate to turnstiles situated between the public areas, the reading rooms, the closed access areas and the staff-only areas. RFID may be used as an alternative to barcodes. These cards will also be used by staff.

Circulation backup

5.19.3 The system should include a facility whereby if the system or any part of the network is not available a circulation workstation may continue to operate in off-line mode, recording issues at the least. Suppliers should detail this facility.

General circulation function

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5.19.4 The system must include a copy enquiry function easily accessible by means of a function key from anywhere within the circulation module which will provide the following data when the barcode/accession number is entered (preferably with a light pen and from the keyboard):

- Full bibliographic record of item and the existence of other copies
- Full location details of item
- Full details of borrower; or
- Item in library; or
- Item recorded as lost or missing
- Item reserved for reader; or
- Item trapped for binding/cataloguing/any other department defined trap
- Item overdue and fine to be collected

Reader/Borrower file

5.19.5 The reader/borrower file must contain records for external readers and staff with the following fields [M]:

- Reader/Borrower number (at least 6 digits to allow for expected number of users including a modulus 11 check digit to check on manual input)
- Name
- Status/job title
- Address, including, for a person, institution where appropriate
 - permanent
 - temporary
- Telephone number
- Name of referee
- Proof of identity note
- Department
- Date of registration
- Category of user (e.g. professional library staff, library school staff, other staff, temporary staff, retired staff, privileged external user, external user, different category of external academic users)
- Expiry date (based on user category)
- Any fines or other charges owed
- Notes field

5.19.6 It must be possible to create and amend records in the reader file quickly and easily at the workstation [M].

5.19.7 The reader file must be updated immediately [M].

5.19.8 It should be possible for the system to assign a number automatically at the time of registration, as well as accepting a number input at the workstation either keyed or read by a bar-code reader [M].

5.19.9 The system should keep a record of the last activity date of each reader [M].

5.19.10 It should be possible to delete reader records either singly or in batches. For the latter, the system should be able to use either a combination of reader category (e.g. casual user) and date of last activity or membership expiry date [HD].

5.19.11 It should be possible for the library to define additional local fields for the record of each reader which can be used for statistical analysis.[M]

Loan policies

5.19.12 It must be possible to specify the loan policy based on a combination of the following [M]:

- a) category of user
- b) type of material (e.g. books, CD's, serials, rare books)
- c) location (e.g. department, open access, closed access, etc.)

5.19.13 The following parameters must be provided [M]:

- a) number of items allowed and whether closed/open access and whether borrowable)
- b) loan period (days/hours)
- c) renewals allowed/not allowed and period
- d) whether item can be recalled whilst on loan
- e) fines to be levied on each item

5.19.14 It should be possible to amend loan policies at any time [M].

5.19.15 If a loan policy is amended, the parameters should apply only to future loans and not to loans made before the amendment [M].

5.19.16 It should be impossible to delete loan policy parameters whilst items are still on loan using those parameters [M].

5.19.17 It should be possible to identify and trap at the time of issue individual items which can only be consulted under the supervision of library staff [M].

Requisitioning items

5.19.18 It must be possible for users to indicate which items they require from within the OPAC module [M].

5.19.19 Users at OPAC workstations should be able to request to consult any item (monograph or serial part) and the system should request input of [M]:

- reader number
- password

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location

5.19.20 The system should check that the reader is valid by checking [M]:
readers on file
reader 'trapped' (i.e. over-borrowed, overdue items, fines owed)
registration expired
reader already requested maximum number of items

5.19.21 The system should not allow the request in the following circumstance [M]:
reader not permitted to consult that category of material
item recorded as lost/missing/reference only or otherwise trapped
item on order

5.19.22 If the item is not available for issue, for example on loan or available at another point in the collection, the system should display a message giving the reason [M].

5.19.23 It should be possible for library staff to override any traps whether here or elsewhere in the circulation system [M].

5.19.24 It should be possible for library staff to request items on behalf of readers at staff workstations. In this case the system could request input of the staff ID and password as a security protection [M].

Reservations

5.19.25 If a reader wishes to reserve an item for use in the future, library staff should be able to input the date or dates when the item is required [M].

5.19.26 The system should check that the item is not already reserved for that day and confirm acceptance. [M]

5.19.27 The system should print recall or request slips for those items which have been booked in advance for a specific day. The recall or request slips should use the same formats as the recall or book delivery request slips [M].

5.19.28 The system should have the facility to levy a charge based on category of user, type of material and location of material.

5.19.29 It should be possible for request and recall slips to be printed automatically at a set time of day [M].

Item retrieval for closed access

5.19.30 The system must be capable of producing printed slips for closed access material giving details of

the items requested by readers so that staff can retrieve items from the shelf [M].

5.19.31 The printed slips must print the following data [M]:

For all materials:	Shelf code, including prefixes Reader's name
For books:	Author Title Year of publication
For serials:	Title Date Vol. and part no.

5.19.32 If the item is already on loan to a category of user where recalls are allowed, the system should print a clearly identifiable recall slip instead of a requisition slip, giving details of the title plus borrower details [M].

5.19.33 When items have been returned after being recalled, library staff should be able to discharge the item and immediately issue to the new borrower, reserving it for the original borrower if necessary [M].

Issues

5.19.34 It must be possible to record delivery of items to readers by inputting the reader number (or name) and accession no. (by keyboard input or lightpen) [M].

5.19.35 It should be possible to identify readers both by number and by name (e.g. if they have not brought their reader card) [M].

5.19.36 The system should confirm the name and brief details of the reader when an item is being issued [HD].

5.19.37 The system should incorporate safeguards to indicate the end of an issue transaction to prevent items being issued by mistake to the wrong reader, e.g. the hardware may require the reader card to be placed in a slot while it is being read and only to be removed when the transactions to that reader are completed [M].

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5.19.38 The system should be able to handle the recording of the dispatch of items to and return from [M]:

- a) photocopying section
- b) photography section
- c) conservation/binding
- d) displays
- e) microfilming
- f) other libraries

5.19.39 It should be possible for the circulation workstations to continue to record issues and returns off-line when the central configuration is not available [M].

5.19.40 It should be possible to update the main system with any transactions collected off-line [M].

5.19.41 It should be possible for the operator to override the due date assigned by the loans policy and specify either a different loan period or an exact time or date for return [M].

Returns

5.19.42 It must be possible to record the return of items by keying the accession number without the need for identification of the reader to whom it was issued [M].

5.19.43 On input of accession number, the system should check for the following conditions and inform the operator [M]:

- Full details of borrower; or
- Item in library; or
- Item recorded as lost or missing (trap)
- Item reserved for reader (trap); or
- Item trapped for binding/cataloguing/any other department defined trap
- Item overdue and fine to be collected (trap)

5.19.44 The operator should be forced to acknowledge the trap and take appropriate action before continuing [M].

5.19.45 It should be possible to return and reissue items without the item being present (i.e. when a book is passed directly between users) [M].

Transfers between Library Staff

5.19.46 There should be a facility for Library Staff to record through the OPAC the transfer of an item issued to them to another colleague. [HD].

Overnight reserve

5.19.47 If the reader of a book from closed access or one without borrowing privileges wishes to use the same book on the following day, it should be possible either to reserve the item or to issue it to 'overnight reserve' so that it is then quickly available for the reader on the following day [M].

5.19.48 It should be possible for the library to specify the number of days an item will be kept on the reservation shelf for a reader before the reservation expires [HD].

5.19.49 It should be possible to print a list of items whose reservation period has expired [HD].

Overdue notices

5.19.51 It must be possible to print reminder notices to specific categories of readers for items past the date of return. The overdue notice must be able to include text defined by the Library [M].

5.19.52 It should be possible for the library to specify the frequency of overdues (e.g. first reminder after 6 months, second reminder after a further month) [M].

5.19.53 The library should be able to vary the wording in each type of overdue notice [M].

Parameter files

5.19.54 It must be possible to amend circulation parameters quickly and easily [M].

Enquiries

5.19.55 It must be possible for library staff to [M]:

- a) see what items are on loan to a specific reader (by number or name)
- b) see that a specific item is on loan (by accession number or any other access point provided in the library enquiry module) and to request the reader to be displayed

5.19.56 Readers should be able to enquire on what items they have issued to them in the OPAC module [M].

Reports and statistics

5.19.57 The following standard reports must be provided [M]:

- a) list of items out to readers but not returned at the end of the day (including details of reader)
- b) list of registered readers (both alphabetically and alphabetically within category)
- c) list of borrowers whose registration is past the expiry date

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d) list of overdue items

e) list of items reserved

5.19.58 The system should produce a report of number and type of circulation transactions on a weekly, monthly and yearly basis [M].

5.19.59 The system should produce on demand both on-line and in printed form a report listing those items which have been recalled but not yet returned [M].

5.19.60 The system should keep a permanent record of the loan transactions of specified classes of items. It should be possible to remove these by date of transaction and class of item [M].

5.19.61 The system should maintain a count of the number of times each item in the section is used [M].

5.19.62 The system should provide reports in English and all the languages and scripts supported by the system [M].

5.19.63 The system should conform to circulation standards such as SIP2 to enable self-issue equipment to be added [M].

5.19.64 The supplier should provide information about future developments in standards, for example compliance with NCIP [O].

5.20 Inter-Library Loan

5.20.1 The system should provide inter-library loan facilities enabling books and other materials and photocopies of articles to be ordered from other libraries [M].

5.20.2 When an item is borrowed from another library it should be treated as an item of the library and a temporary catalogue record created [HD].

5.20.3 It must be possible to calculate fees for ILL material both those charged by the lender and those paid by the borrower.

4. It must be possible to collect fees from borrowing libraries.

5.21 System/user interface

5.21.1 Error messages must be clear and specific and must not consist only of a code which requires the operator to consult a manual to determine its meaning.[M]

5.21.2 There must be at all times be an indication of the function currently in use as well as instructions on how to move to the next stage or back to the previous stage, if applicable. [M]

5.21.3 It should be possible for experienced users to avoid the menu and go directly to a routine, bypassing choices [M].

5.21.4 The system should 'remember' the most recently retrieved record or set of records from function to function unless canceled [M].

5.21.5 The system should present the operator with default values (e.g. number of copies to order, fund code, library code, language etc.) wherever possible to reduce keystrokes. The systems librarian should be able to specify what the default values will be [M].

5.21.6 It should be possible for the systems librarian to amend the wording of all error messages and prompts above the level of the operating system [M].

5.21.7 Whenever the operator is required to input data and only a limited number of values is allowed, the operator should be able to view these on-line in order to see allowable values [HD].

5.21.8 It should be possible to tailor menus for specific users and workstations, including or excluding options as desired [M].

5.22 Other application requirements

Non-bibliographic databases

5.22.1 It must be possible to create non-bibliographic databases and to allow access to these via any of the system modules by including additional menu options. The system must return to the main database after use of any such database. The Library wishes to establish at least the following:

Reference Enquiry database
General Address Files

5.22.2 It should not be necessary to log off to change databases [HD].

5.22.3 It should be possible to copy records either individually or in a batch from one database to another [M].

5.22.4 It should be possible to make use of files and data in the bibliographic database from other databases and vice versa. For example, a database of vendors should be able to reference the name records in the name authority file for the correct form of a learned institution's name; another database may need access to the supplier file in the acquisitions module [M].

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5.22.5 It must be possible to retrieve an associated image such as a photograph of a museum object, either alongside a bibliographic record or by pressing a reserved key to obtain this, in which case the possibility of the use of this key should be displayed on the screen with the record.[M]

Printed products

5.22.6 A mechanism is required to search, retrieve and print out data from the data in the system. These records could be used either for specialized listings, bibliographies and catalogues or for management analysis [M].

Examples are:

- a) all items acquired in a particular year which cost more than a specified amount

5.22.7 The retrieval system must support the following features [HD]:

- a) retrieve records using any data value in any field
- b) use Boolean combinations
- c) use at least the same features as in the OPAC
- d) write results to a file or a printer
- e) the print format must allow the user to specify:
 - which fields to print
 - which occurrence of a repeated field to print
 - order of fields to print
 - which subfields to print
 - whether to print subfields in order as entered or in a specified order
 - preceding/trailing text around fields (e.g. labels, spacing or punctuation)
 - capitalization of fields and subfields
 - underlining and italicization of individual subfields
 - indentation, line length
 - calculation of totals and subtotals (and averages) of numeric fields and record counts
 - right justification of text or otherwise

5.22.8 The manipulation of the module to produce printed products must not require traditional programming language skills and should be adaptable by the trained user [M].

5.22.9 It should be possible for the library to create a 'standard' format for printed products as menu options within selected areas of the application package [M]. There should for example be a standard format for different kinds of materials. [M]

5.22.10 There should be a sort capability of at least four levels (e.g. main entry, title, edition, date). Suppliers should specify whether sort routines use standard library practices [M].

5.22.11 Lines of text printed out should be broken at spaces or hyphens (word-wrap).[M].

5.22.12 It should be possible to arrange to print a special header on every page of printout to contain data

relating to, say, copyright or an acknowledgment of the donors of the system.[HD].

5.23 Performance requirements

NOTE: Except where stated otherwise the term 'response time' will be taken to mean the time elapsed between depressing the Return Key (where required) after a complete, valid command and the completion of the display on the screen of the first character of the information required for that command. A 'holding' response such as 'searching' or 'please wait' should be provided but obviously will not be acceptable for calculating the response time.

5.23.1 For the following transactions the system must respond within 5 seconds in at least 80% of cases [M]:

Record creation/editing
Circulation transactions
Record storage excluding updating inverted files (assuming this is a feature of the system).

5.23.2 For the following transactions the system must respond within 8 seconds in at least 80% of cases [HD]:

Record storage including updating inverted files.
All other transactions

5.23.3 The supplier must state how many workstations the proposed system will support without degradation of the above performance, assuming that all workstations are on-line at the same time and are fully loaded [M].

5.24 Maintainability, serviceability and fallback requirements

All requirements in 5.24 are mandatory

5.24.1 The supplier must accept prime contractual responsibility (this does not preclude a consortium) for all items in his proposals. This covers any item, whether hardware, software or services, which the supplier provides directly or which is supplied from another source or sources.

5.24.2 The supplier must state that he will accept a 10 calendar year commitment to maintain and support the hardware and software supplied from the date of acceptance of the system by the institution.

5.24.3 Maintenance must be available for all system components for a substantial part of the working

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week. The supplier must state between which times cover will be provided, for which components and must detail the cost of such cover. The supplier must detail whether maintenance can also be provided outside these hours and state the cost. This might be required, for example, to avoid shutting down the system during working hours.

5.24.4 The supplier must be actively addressing any call-out within 2 working hours from the time of contact from library staff to the supplier's office, during the agreed maintenance hours. He must state how this will be achieved.

5.24.5 The supplier must restore the system to full working order (excluding restoration of data) or provide replacement equipment of at least the same specification within 2 further working hours. For workstations and peripherals an 8 hour 'time to fix' will be acceptable and different maintenance arrangements may be available. Suppliers should give details of these. Suppliers must state how this will be achieved.

5.24.6 The supplier must state with what frequency routine preventative maintenance is to be carried out and whether units have to be removed from service during maintenance.

5.24.7 The minimum requirement for serviceability will be 98% for the central configuration and 95% for communications and peripheral equipment and the supplier must confirm his acceptance of this serviceability level. (In practice it is expected that the proposed equipment will achieve a substantially higher level of serviceability and the supplier is asked to state the serviceability levels achieved by his currently installed user base.)

5.24.8 It should be possible for the supplier to identify faults using remote access dial-in diagnostic support. Suppliers should indicate any additional costs related to remote diagnostic facilities.

5.25 Support

All requirements in 5.24 are mandatory

5.25.1 The supplier must appoint a project manager acceptable to the Library to be a point of contact for the Library and responsible for all aspects of project management and system functionality from short-listing until the system is accepted.

5.25.2 The supplier must state the range of additional support services available such as training programmes, assistance with system management tasks, and quote the daily cost of such support.

5.25.3 The supplier should indicate if a User Group for the package exists; the name and address of the secretary, and the degree of involvement of the supplier.

5.26 Training

All requirements in 5.26 are mandatory

5.26.1 The supplier must indicate his ability to provide training in the use of the application package to suit all types of user and state the subject, location and prices of current training provision.

5.26.2 The supplier must confirm his ability to provide off-site and on-site training and should indicate the usual location of off-site training courses.

5.26.3 The system must provide a training mode or account where each module can be used without affecting the main database.

5.27 Documentation

All requirements in 5.27 are mandatory

5.27.1 There must be easily understood and indexed user manuals for each element of the system available to each user.

5.27.2 The supplier must provide at least 2 sets of comprehensive documentation for those staff who will oversee day-to-day operation of the system. All the information necessary to operate all the facilities offered must be available.

5.27.3 The supplier must provide relevant documentation for each workstation, printer or peripheral device supplied.

5.27.4 The supplier must agree to provide updated manuals as required throughout the maintained life of the system. The supplier must also quote the expected frequency of such updates and any additional costs involved beyond the normal maintenance charges.

5.28 Demonstrations

All requirements in 5.27 are mandatory

5.28.1 The supplier must agree to demonstrate at the discussion stage following short-listing either a configuration of the required size (or a subset of that system) sufficient to satisfy the Library that the required performance can be met.

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5.28.2 The supplier must state the number of users by country of similar systems supplied by himself and list their names.

5.29 Expansion capabilities

5.29.1 The supplier must indicate the ability to upgrade the proposed configuration by 100% of the identified workload shown in Appendix A and state how this will be done and an indication of the cost. The supplier should take into account that additional workstations and storage will be required when the conversion of the old catalogues is complete [M].

5.30 Environment

NOTE: Shortlisted suppliers will eventually be asked to provide details of the precise locations of system components. These will be determined at the discussion stage and any significant environmental features and/or variations will be notified to suppliers.

All requirements in 5.29 are mandatory

5.30.1 The supplier must state any special constraints which may arise because of the location.

5.30.2 The equipment is expected to operate in a normal office environment. The supplier must state any special constraints (e.g. minimum/maximum temperature, humidity, special power supply etc.) which will apply to his equipment. The cost of overcoming any constraints must be included in the overall system cost.

5.30.3 The equipment may have to be moved during its lifetime. The supplier should state, particularly in the case of the CPU and fast printers, that this is possible and give an estimate of the likely cost.

5.31 Consumables

5.31.1 The supplier is asked to specify what consumables (e.g. print ribbons, print heads etc.) will be required and give details of the life expectancy and cost of these items. The supplier must also specify which consumables (in particular, tapes, discs etc.) can be purchased as industry-standard items or whether they are unique to the system supplier. [M]

5.32 Other application requirements

5.32.1 Suppliers should indicate whether they can supply other standard application packages in the

following areas. A brief description of the main functions available and prices should be given.[HD]

- 1) Word processor
- 2) Desk-top publishing
- 3) Spreadsheet
- 4) General accounting packages

5.33 General

5.33.1 The Supplier should feel free to make any additional comments he considers relevant or of interest.

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6 INSTRUCTIONS TO SUPPLIERS

6.1 General

6.1.2 The supplier will be required to meet all mandatory requirements. Any system which does not comply with mandatory requirements will be considered unsuitable and as a consequence will be excluded during the short-listing process.

6.1.2 Whilst every endeavour has been made to give suppliers an accurate description of the requirements, suppliers should form their own conclusions about methods and resources needed to meet these requirements. The Library cannot accept responsibility for the Supplier's assessment of the system.

6.1.3 The prospective supplier will be expected to demonstrate items of hardware and software for which a proposal has been made. Such demonstrations should, as far as practicable, simulate use of the item in the user environment. The supplier will be invited to include actual user requirements in his demonstration; the Supplier will be expected to bear his own costs of such demonstrations.

6.1.4 The Library wishes to procure a system which does not need any special software writing for it and this will influence heavily the choice of system. In the event that any special software is written to meet the requirements of this Request for Proposals, the Library will wish to negotiate over retention of intellectual property.

6.2 Submission and format of proposals

6.2.1 To facilitate evaluation of proposals, they must be submitted in two copies with appended materials also in two copies. The supplier must respond to each specification number listed in the order in which they are presented and must indicate whether

the system fully meets or exceeds the specification;

the system meets the specification but in a manner different to that in which it is described;

The system is expected to meet the specification at a known point in the future (because the system is under development);

the system does not meet the specification and there are no plans for it so to do.

The proposal must be sent to:

{Insert name of officer}

The proposal should be received by

6.2.2 Suppliers requiring further clarification of any points on this Request for Proposals should address their enquiries in the first instance to:

For procurement and technical matters: {Insert name}
Address:

Telephone:

For information on finance to {Insert name of finance officer}

Telephone:

6.3 Timetable

The proposal should include a timetable for procurement going into detail and taking into account any phasing that may be necessary because of funding constraints.

6.4 Hardware configuration and delivery

The proposal should include a list of the hardware components of the proposed equipment giving model numbers and description. Names of original manufacturers of all hardware should be stated. Delivery and installation dates should be quoted for each item of equipment. Details of environmental requirements should be provided.

6.5 Proposed software and availability

Details of all software necessary for the proposed system should be supplied. The Supplier should not confine himself to stating whether his software package can or cannot meet the requirements of this Request for Proposals but should give fuller information about the packages in question, stating their capabilities and limitations. Dates by which any item will be available if not already available should be quoted. A statement should be given of the company's policy on maintaining and updating the package.

6.5.1 Where any item of software proposed is not solely developed by the Supplier, then this must be

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clearly stated. The name, address, and telephone number of this originator must also be given. In the event that any originator is introduced to the Supplier by the Library, this does not absolve the Supplier from any of the responsibilities laid down in this request for Proposals.

6.6 Supporting services

6.6.1 Suppliers must give details of maintenance services, training facilities, program development facilities, manuals and support personnel to be provided.

6.6.2 Suppliers must state who is responsible for the ongoing development of the application package proposed and where these are located.

6.7 System capability and reliability

6.7.1 The Supplier must present calculations to demonstrate that the system proposed is adequate to handle the workload described in this Request for Proposals.

6.7.2 Suppliers should specify the level of serviceability/reliability being offered, and the degree of resilience within the system proposed.

6.8 Estimate of total cost

6.8.1 Costs at current prices (excluding tax, import duty, etc.) should be quoted for the proposed configuration. The costs (either on rental and/or purchase terms) of each individual item of both hardware and software must be shown. All costs must be included or summarized in this section. Costs which appear elsewhere in the proposal, but which are not summarized in this section, will be presumed to have been waived. Suppliers are welcome to make proposals based on leasing and buy-back or any other financial arrangements that they may be able to propose.

6.9 Expansion capabilities

6.9.1 Suppliers should describe possible ways by which the proposed system can be expanded both by on-site upgrades and by the installation of an additional or replacement system, and give outline information on the range of compatible equipment available.

6.10 The Supplier's organization

Suppliers should supply the following information:

6.10.1 A brief outline of the organization of the supplier's company (with appropriate references to parent or subsidiary companies).

6.10.2 A list of customers using the same proposed hardware and software packages.

6.10.3 Size of company submitting the proposal, with

- a) annual turnover
- b) total number of employees
- c) number of employees by country engaged on library software development and maintenance
- d) the name of the project manager to be assigned to the library software development and maintenance, plus a brief curriculum vitae
- e) the number of employees by country engaged solely on implementation and post-sales support

6.10.4 The policy of the supplier with regard to:

- a) the maintenance of the proposed configuration, third party maintenance, fault reporting and hardware modifications
- b) the future charge for maintenance services, software upgrades
- c) the planned development of and support for the equipment range(s) proposed over the next decade, both in terms of hardware and software.
- d) compatibility between the equipment proposed and any future developments
- e) provision of free and/or chargeable testing time before systems proposed are installed
- f) liability accepted in contracts to cover non or late delivery of equipment and/or supporting services
- g) pricing policy on options
- h) policy with respect to quality control in all aspects of company's operation (has it been certificated under ISO 9000?)

6.11 The Supplier may wish to include a sample contract in the supporting documentation though he should be aware that it is the policy of the Library to prepare its own contract for purchases of this nature.

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APPENDIX A Expected size of database and system

Library

	Total at 2004	Added Per Year
Catalogue		
Bibliographic records entered in	200,000	30,000
Records added by copy or downloading		8,000
Bibliographic records deleted		2,500 ??
Circulation		
Borrower records added		3,000
Issues		250,000
Discharges		250,000
renewals	50,000	
Reservations		50,000
Recalls		?
Overdue notices	10,000	
Fines notices		5,000
Item ready for collection notices	25,000	
Acquisition		
Orders placed		38,000
Order claims made		14,000
Cancellations made		7,000
Volumes received		30,000
Vendor records created		200
(the number is expected to decrease)		
Serials		
Issues checked in		7,000
issues needing to be claimed		1,800
Issues routed		3,000
Volumes bound		7,000
Invoices processed		3,600
ledger entries		36,000
Reports produced	150	

Size of records

Records in the CDS/ISIS databases consist of average 450 characters. However, it is conceived that records in future will be downloaded from CD-ROM or tapes and their expected size is 1,200 characters. The implementation of UNICODE will have a large effect on the database size: it is not taken into account in these figures.

The figures below are estimates and to a large extent depend on the software.

Borrower records	400 characters
Acquisitions records	300 characters
Periodical checkin records	2000 characters
Vendor file	500 characters

Hardware requirements

Number of workstations

Number of simultaneous users:

OPAC

Staff workstations

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Appendix B Transactions

Order records entered per week 700-750

Catalogue records entered per week 700-750

Searches made per hour by:

Library Staff (for information retrieval)	100	
Readers (including Library staff)		800
Acquisitions staff	40	

No of serials issues received per week *circa* 150

Appendix C Existing records

00942000000000277000450022400080000024100190000825100360002725100120006330100200
00753110078000953110077001733110048002503120021002980010007003190020011003260030
03300337011001000370013001000380021000200390101001300392111000300405201005900408
212002700467213008900494222008100583#^a1992.#^a255p^bIll.^c22cm#Includes Bibliog
raphical references#Incl.Index.#^a016.94404^bDDC^cD#^aFrance - HIstory - Revolut
ion ,1789-1799-Bibliography - Congresses^bL.C.^c0#^aFrance-History-revolution,17
89-1799-Archival resources-Congresses^bL.C.^c0#^aArchival resources-France-Congr
esses^bL.C.^c0#^aNahed / Yehia/Iman#LB--93#1994-03-31#^aTATE1^bTATE GALLERY LIBR
ARIES #^aEng^bba#^aEng^bba#M#^a1560241500#^a#^aBibliographical foundations of fr
ench historical studies#^aCrank , Lawrence J.^eEd.#^aFerris State University ,bi
g rapids,Michigan^bDean of library and Instructional Series#^aNew York^bThe Hawo
rth Press^c10 Alice St., Binghamton, N.Y. 13904-1580^dU.S.A.##
012070000000038500045000010014000000200110001400300330002501100100005801300100
00680210002000780230004000800240004000841010019000881120010001071120010001172010
06700127212002000194213008800214222007900302223006600381224002200447231005900469
24100230052825100360055130100210058730100220060831100540063031100550068440100150
0739401001000754402000300764500001400767501002900781040001100810#LB--94 2#1
994-03-31#^aTATE1^bTHE LIBRARY#^aEng^bba#^aEng^bba#M#010#100#^a08665
69332^cHbk.#^aP-12526#^aP-12527#^aCollection Management in Sci-Tech Libraries^bE
llis Mount, Editor#^aMount, Ellis^eEd.#^aColumbia University, New York City^bRes
earch Scholar at the School of Library Service#^aNew York^bthe Haworth Press^c10
Alice St., Binghamton, NY 13904-1580^dU.S.A.#^aCairo^bAl-Ahram Distribution Age
ncy^cAl-Galaa St., Cairo^dEgypt#^a19890000^cCopyright#^athe Science & Technology
Libraries Series^cVol. 9, No. 3#^a125p.^bTables^c22cm.#Includes Bibliographical
References#^a025.2'1865^bDDC^cD#^aZ675.T3C59^bL.C.^cL#^aTechnical Libraries-Col
lection Development^bL.C.^c0#^aScientific Libraries-Collection Development^bL.C.
^c0#^b656^cP-12526#^cP-12527#02#^a122.800L.E.#^aAmany Abed-Sherine G. Rev.#^a01-
02-96##
0095200000000289000450020100620000021200360006222200870009822400080018524100210
01932510072002143010020002863110074003063110071003803110023004513110035004743120
02400509401001700533401001700550402000200567001001400569002001100583003003300594
011001000627013001000637021000200647101001300649#^aAustralasian Serials: Current
Developments in Bibliography.#^aMills,Carol ^eEd^aMills,John^eEd.#^aNew York ^b
The Haworth Press, Inc.^c10 Alice Street,Binghamton,NY 13904-1580^dU.S.A.#^a1991
.#^a88p.^bTaps ^c22cm.#Includes Bibliographical references. / Alk. paper. / Pric
e:113.700 L.E.#^a025.3'432^bDDC^cD#^aSerial publications - Australasia - Bibliog
raphy - Methodology^bL.C.^c0#^aCataloging of serial publications - Standards - A
ustralasia^bL.C.^c0#^aPeriodicals^bL.C.^c0#^aSerials control systems^bL.C.^c0#^a
Yehia. - Rev.: Omnia.#^b116STF-LSD^cP-#^b116STF-LSD^cP-#2#LB--94 3#1994-03-

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31#^aTATE1^bTHE LIBRARY#^aEng^bba#^aEng^bba#M#^a1560241950##
008410000000027700045000010014000000200110001400300330002501100100005801300100
00680210002000781010013000802010056000932120017001492120025001662220082001912240
00800273241001500281251005900296301002300355311005800378311006800436312002200504
401001700526401001700543402000300560#LB--94 4#1994-03-31#^aTATE1^bTATE GALL
ERY LIBRARY #^aEng^bba#^aEng^bba#M#^a0866568409#^aRothstein on Reference ...Wi
th Some Help from Friends#^aKatz, Bill^eEd#^aBunge, Charles A.^eEd.#^aNew York^b
The Haworth Press^c10 Alice Street, Binghamton, NY 13904-1580^dU.S.A.#^a1989.#^a
646p.^c22cm.#Includes Bibliographical references. / Price: 250.300 L.E.#^a025.5'
2'0973^bDDC^cD#^aReference services (Libraries) - United States^bL.C.^c0#^aRefer
ence services (libraries) - United States - History^bL.C.^c0#^aYehia. - Rev.Omni
a.#^b116STF-LSD^cP-#^b116STF-LSD^cP-#02##
009730000000030100045000010007000000200090000700300330001601100090004901300090
00580210002000671010013000692010064000822120027001462130097001732220083002702240
00800353241002400361251003600385301002000421311006000441311005400501311004400555
312002100599401001700620401001700637402000300654500001400657#LB--94#19940403#^aT
ATEL^bTHE LIBRARY#^aENG^bB#^aENG^bB#M#^a0866569162#^aDescribing Arch
ival Materials: The Use Of The Marc AMC Format#^aSmiraglia,Richard P.^eEd#^aColu
mbia University^bSenior Lecturer In Bibliographic Control At The School Of Libra
ry Service#^aNew York^bThe Haworth Press^c10,Alice St. Binghamton,New York 13904
-1580^dU.S.A.#^a1990.#^a228 P.^bTabls^c22 cm.#Includes bibliographical reference
s#^a025.30285^bDDC^cD#^aCataloging Of Archival Material-Data Processing^bL.C.^c
0#^aCataloging Of Manuscripts-Data Processing^bL.C.^c0#^aMarc System-United Sta
tes-Format^bL.C.^c0#^ahany / Rev.: Omnia#^b116STF-LSD^cP-#^b116STF-LSD^cP-#02#^a
163:50 L.E.##
0090300000000301000450020100730000021200230007321300770009622200640017322400080
02372410014002452510064002593010016003233110037003393110050003763110016004263110
02100442312002000463401001700483401001700500402000200517001000700519002000900526
003003300535011000900568013000900577021000200586101001300588#^aInformation Seeki
ng Communication Behavior Of Scientists And Engineers#^aSteinke, Cynthia^eEd#^aU
niversity Of Minnesota^bDirector Of The Institute Of Technology Libraries#^aNew
York^bThe Haworth Press 10, Alice St.Binghamton^dNew York#^a1991.#^a155p.^c23cm#
Incl.Bibliographical References /Price:122.800 /ACID-FREE PAPER#^a501.4^bDDC^cD#
^aCommunication In Science ^bL.C.^c0#^aCommunication Of Technical Information^bL
.C.^c0#^aScientists^b0#^aEngineers^bL.C.^c0#^aABIR. rev.: hany.#^b116STF-LSD^cP-
#^b116STF-LSD^cP-#2#LB--94#19940406#^aTATE1^bTHE LIBRARY#^aENG^bB#^a
ENG^bB#M#^a1560241357##
0088300000000277000450022400080000024100240000825100410003230100200007331100470
00933110049001403110039001893110050002283120007002784020002002850010007002870020
00900294003003300303011001000336013001000346021000200356101001300358201007500371
212002500446213006800471222006600539#^a1988.#^a277P.^bill,Tabls^c22Cm#Incl. Bibli
ographies /Price: 204.700L.E.#^a025.30285^bDDC^cD#^aMachine-Readable Bibliograph
ic Data^bL.C.^c0#^aExchange Of Bibliographic Information^bL.C.^c0#^aBibliography
, National-Data^bL.C.^c0#^aBibliography, International-Data Bases^bL.C.^c0#^aABI
R#2#LB--94#19940402#^aTATE1^bTHE LIBRARY#^aENG^bba#^aENG^bba#M#^a086
6567496#^aNational And International Bibliographic Data BasesTrends And Prospec
ts#^aCarpenter, Michael^eEd#^aLouisiana State University^bSchool Of Library&Info

Information Science#^aNew York^bThe Haworth press^c10, Alice St. Binghamton^dNew York##

This is comparable to the standard ISO file except that there is a carriage return after every 80th character. Tags can be changed in the CDS/ISIS system when preparing an output file, so the proposed system need not be able to do this.

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Appendix D Asian and Extended Latin (Diacritical) characters

The following diacritical characters are required:

German	äöü
Danish	åæ0
Swedish	åä
Norwegian	å
Icelandic	íö þǫp
French	áéâàçèèôù
Italian	à
Spanish	áñó
Catalan	à
Portuguese	êçãõ
Rumanian	âîş
Welsh	â??wy
Polish	???
Czech	á????ýéÿ?š???
Slovak	ác
Slovene	?
Serbo-Croat	?
Hungarian	á
Turkish	ç????ü
Basque	ñ
Finnish	ä
Irish	á
Albanian	âë
Latvian	??
Lithuanian	???
Estonian	?

Appendix F : Glossary of terms

OPAC

Systems manager / Systems Librarian