



CHAPTER 10

LIBRARY AUTOMATION

The term 'Library Automation' is being used extensively in library parlance to mean the application of Computer systems to perform some of the traditional library activities such as acquisition, cataloguing, circulation, stock verification etc. Information retrieval, automatic indexing and abstracting, and networking are included in its preview. Besides computer, telecommunication technology and reprography technology are also playing a significant role in library automation, making libraries and librarians to redefine their objectives and roles respectively.

Advantages of Computerisation

- ❖ Labour saving.
- ❖ Cost effective.
- ❖ Efficiency in speed and operation.
- ❖ Ease and accuracy of data handling.



Fig. 12. Library Automation



- ❖ Great speed and promptness in operation.
- ❖ Elimination of duplication.
- ❖ Great manipulation possible.

Impact

As a result of application of Computer and Information Communication Technologies and reprographic devices, a great change is taking place in Library and Information Resource Centres. The new technology is tending to alter radically our libraries and information resource centres. As a result our library systems have undergone a major transformation in the area of information processing, storage and retrieval. Application and use of computers is an established norm in bibliographical information handling in advanced countries, but in India the pace of development in libraries is visibly slow. Nevertheless the things are changing for good and more and more libraries are turning for computerisation. The areas, which need immediate computerisation, are:

1. Database activity

- ❖ Creation of local database
- ❖ Online access to remote databases
- ❖ Downloading of information

2. Library operations

- ❖ Cataloguing
- ❖ Indexing
- ❖ Circulation
- ❖ Acquisition
- ❖ Inventories
- ❖ Serials control

3. Data communication and Networking

- ❖ E-mail



- ❖ Message system
- ❖ Teleconferencing

4. Management Information System

- ❖ Computing
- ❖ Statistical manipulation
- ❖ Tabulations
- ❖ Simulations

5. Other Applications

- ❖ E-publishing
- ❖ Document delivery
- ❖ Translation.

LIBRARY SOFTWARE

In order to perform the tasks expected of a library, a number of libraries have written their own softwares. The NIC bibliographic package e-Granthalaya has been very popular which is available free of cost. Libraries wishing to use this package may contact the National Informatics Centre (NIC), CGO Complex, Lodhi Road, New Delhi, for cost free supply of this package. Besides, a large number of Commercial concerns have also come up in the field with their products. A few of these are listed below with their salient features. Keeping in view the requirements, the libraries are advised to select a package, which meets their requirements.

ALICE FOR WINDOWS

Alice for Windows is library automation management software. Its Features include:

- ❖ Electronic documents cataloguing
- ❖ Boolean multiple fields search
- ❖ Reminder notice via e-mail to members



- ❖ Message popping for overdue of Resource
- ❖ Bulletin board failed search records automatic keyword generation
- ❖ See and see also reference library map
- ❖ Multimedia live demonstration member card generation with photograph
- ❖ Barcode labels and spine labels from our software database printing by using laser printer (no need to purchase barcode printer). Random barcode generation is also possible
- ❖ Reservation and booking of resources in intranet/internet environment.

VTLS

VTLS stands for Visionary Technology in Library Solutions. With products such as Virtua (the first unicode-compliant ILS, the first to incorporate FRBR functionality and the first to support RDA implementation one scenario), VITAL (digital repository software built on an open-source framework), and Fastrac (versatile RFID solution), fulfil the library need now and in the future also. The main features of VTLS are following:

- ❖ Fully Integrated flexible library management system
- ❖ Operating Systems – Linux, Unix and Solaris
- ❖ Customized menus, toolbars, screens and reports
- ❖ Powerful back-end RDBMS (ORACLE)
- ❖ Contextual online help available in every menu
- ❖ Makes use of function keys as shortcuts
- ❖ Supports EM/RFID security system
- ❖ Global software support and service

E-GRANTHALAYA

e-Granthalaya is a library automation software from National Informatics Centre, Department of Electronics and Information Technology, Ministry of Communications and Information Technology, Government of India. The software has been designed by a team of experts from software as well as



Library and Information Science discipline. Using this software the libraries can automate in-house activities as well as user services. The software can be implemented either in stand-alone or in client-server mode where database and Web OPAC are installed on the server PC while the data entry program is installed on client PCs. The software provides LAN/Web based data entry solutions for a cluster of libraries where a centralized/Common database can be created with the Union Catalogue output. The software provides Web OPAC interface to publish the library catalogue over Internet/Intranet. The software runs on Windows platform Only, UNICODE Compliant, thus, supports data entry in local language..

Features

- ❖ Runs on Windows platform only (Win XP/vista/7/Server 2003/2008)
- ❖ Provides Local/LAN/WAN based data entry solution
- ❖ UNICODE Compliant, supports data entry in local language
- ❖ Module - wise permission to the software users
- ❖ Work-flow as per Indian libraries
- ❖ Retro-conversion as well as full cataloguing modes of data entry
- ❖ Authority files/ master tables for Authors, Publishers, Subjects, etc.
- ❖ Multi-Vol., multi-copy and child-parent relationship pattern
- ❖ Download catalogue records from internet
- ❖ Z39.50 client search built-in
- ❖ Exhaustive reports for print
- ❖ Export records in CSV/text file/MARC 21/MARC XML/ISO:2709/MS ACCESS/ EXCEL formats
- ❖ Merger databases of eG3 into single database
- ❖ Common/Centralized database for N Number of libraries, minimize data entry
- ❖ Main/Branch libraries acquisition/cataloguing
- ❖ Print accession register



- ❖ Search module built-in with basic/advance/boolean parameters
- ❖ Library statistics reports
- ❖ CAS/SDI services and documentation bulletin
- ❖ Updated regularly with enhanced features
- ❖ Compact/summary/detailed reports option
- ❖ Generate bibliography
- ❖ Data entry statistics built-In
- ❖ News clipping services built-in
- ❖ Digital library integration with uploading / downloading of pdf/html, etc. documents
- ❖ Micro-documents Manager (articles/chapter indexing)
- ❖ SERIALS Control System for Subscription with Auto-Generate Schedule
- ❖ Budget modules with bill register generation, manages multi-budget head
- ❖ Import data from any structured source
- ❖ Well exhaustive web based OPAC interface with separate membership module

Lsease

The web based search facility for bibliographic searches is fast even for large databases.

LSEase Advantages

- ❖ Flexible to run on any operating system
- ❖ Support for multi-media files
- ❖ Interactive, screen-oriented and menu driven user interface
- ❖ User-defined security levels
- ❖ Optional web-based architecture



Modules

- ❖ Acquisition
- ❖ Cataloguing
- ❖ Circulation
- ❖ Serials
- ❖ OPAC
- ❖ Reports

Standards Compliance

- ❖ MARC21
- ❖ Unicode
- ❖ SRU-SRW
- ❖ Z39.50

Features

- ❖ MARC 21 cataloguing
- ❖ Z39.50 based net cataloguing
- ❖ Barcode enabled with option for RFID/EM integration
- ❖ Integration with smart card / biometric readers
- ❖ More interactive and enhanced Web OPAC
- ❖ Full unicode support
- ❖ RDBMS based backend
- ❖ Integration of multi-location libraries



Soul

Software for University Libraries (SOUL) is a state-of-the-art integrated library management software designed and developed by the INFLIBNET Centre based on requirements of college and university libraries. The software is compliant to international standards for bibliographic formats, networking and circulation protocols. The first version of software i.e. SOUL 1.0 was released during CALIBER 2000. The latest version of the software i.e. SOUL 2.0 was released in January 2009. The database for new version of SOUL is designed for latest versions of MS-SQL and MySQL (or any other popular RDBMS). SOUL 2.0 is compliant to international standards such as MARC 21 bibliographic format, Unicode based Universal Character Sets for multilingual bibliographic records and NCIP 2.0 and SIP 2 based protocols for electronic surveillance and control.

Major Features and Functionalities

- ❖ UNICODE based multilingual support for Indian and foreign languages;
- ❖ Compliant to International Standards such as MARC21, AACR-2, MARCXML;
- ❖ Compliant to NCIP 2.0 protocol for RFID and other related applications especially for electronic surveillance and self check-out and check-in;
- ❖ Client-server based architecture, user-friendly interface that does not require extensive training;
- ❖ Supports multi-platform for bibliographic database such as My SQL, MS-SQL or any other RDBMS;
- ❖ Supports cataloguing of electronic resources such as e-journals, e-books, virtually any type of material;
- ❖ Supports requirements of digital library and facilitate link to full-text articles and other digital objects;
- ❖ Support online copy cataloguing from MARC21 supported bibliographic database;
- ❖ Provides default templates for data entry of different type of documents. User can also customize their own data entry templates for different type of documents;
- ❖ Provides freedom to users for generating reports of their choice and format along with template and query parameters;



- ❖ Supports ground-level practical requirements of the libraries such as stock verification, book bank, vigorous maintenance functions, transaction level enhanced security, etc.;
- ❖ Provides facility to send reports through e-mail, allows users to save the reports in various formats such as Word, PDF, Excel, MARCXML, etc.;
- ❖ Highly versatile and user-friendly OPAC with simple and advanced search. OPAC users can export their search results in to PDF, MS Excel, and MARCXML format;
- ❖ Supports authority files of personal name, corporate body, subject headings and series name;
- ❖ Supports data exchange through ISO-2709 standard;
- ❖ Provides simple budgeting system and single window operation for all major circulation functions;
- ❖ Strong region-wise support for maintenance through regional coordinators. Strong online and offline support by e-mail, chat and through dedicated telephone line during office hours.