

# Study on Automated Circulation Control System in Library

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In this current information technology age, use of computers for library housekeeping operations is not simply feasible, but inevitable. It has become a necessity than anything else. Many networks are now emerging in India. For participation and also the effective utilisation of network resources, it is necessary for the participating members to automate their libraries. Although required hardware for library automation is now available at a reasonable cost; software packages are however not easily available. Before introducing automation, a comprehensive evaluation of the library requirements, software features needed, and capabilities of the hardware for implementing the software has to be made.

## **AUTOMATED CIRCULATION CONTROL SYSTEM (ACCS)**

Circulation as a library function is a very specific and well defined operation. It is concerned with the clerical function of keeping track of documents taken out or returned by the user. The scope of an ACCS can be either traditional or broad depending upon the design objectives established by the library. Thus, one of the basic considerations in the design and selection of circulation system is defining the role and objectives of a circulation system in the library. A typical ACCS performs some or all of the following functions:

Provision of information for the location of items under circulation-either all items in the library or only those items on loan or elsewhere, i.e., at the bindery, on reserve, being recatalogued, etc.

Identification of items on loan to a particular borrower or class of borrowers, Recording of holds or personal reserves for those items on loan but desired by another borrower, often with additional provision for notifying the

library staff when the desired item is returned and printing notice to the requester about the availability of the document.

## **RENEWAL OF LOANS.**

1. Notification to the library staff .of delinquent borrowers either at the time of an attempted loan or when the borrower is leaving the institution or on request from the library.
2. Calculation of fine, printing of overdue notices, recording the receipt of fines, and sometimes printing details of fine receipts.
3. Calculation and printing of statistics.
4. Provision to handle special .categories of users and special types of materials.
5. Provision to print due date slips.

Obviously, these functions are in addition to the primary functions of the system-charging and discharging. To achieve these objectives, the ACCS is designed to record and manipulate the following three kinds of information (who borrowed what and when): information about the borrower information about the document Information about transactions these data are collected in a variety of ways. They may be written on a slip entered by the borrower or by a library clerk and then keyed into the system. Alternatively, the minimum possible data elements pertaining to the documents and borrowers may then be obtained automatically from pre-punched machine-readable cards. The complete information of borrowers and documents then be obtained from permanently stored users' and items' files respectively. In a micro-computer

system, information about users and documents may be appropriately displayed on the screen by keying in the identification code number and then the relevant information may be re-written on a transaction file along with the transaction data. Information regarding the documents can thus be considered either as transitory (i.e., recorded in the transaction file when only single item is removed from its normal location-absence system) or as permanent-inventory system (i.e., stored in the transaction file irrespective of where the book is-inventory system). The data structure and the medium to store the necessary information may depend upon the above two systems. Usually, in a typical ACCS, transaction file, user file, document file and reservation file are maintained. Data elements in these files depend upon the above two systems-absence or inventory systems.

### **AUTOMATED CATALOGUING SYSTEM (ACS)**

The primary objective of an ACS is to create user access catalogues either by online or CD-ROM or microform. In a typical ACS, the following files are maintained and operated:

- ✚ Bibliographic file consisting complete cataloguing elements, as required by MARC, CCF, etc.)
- ✚ Authority control file
- ✚ Catalogue/database, often known as online/off-line public access catalogue
- ✚ Item file consisting of records for each documents
- ✚ Shelf-list which is separately maintained in the ACS for convenience and security reasons
- ✚ Accession file, which strictly speaking is a part of an automated acquisition control system.

The bibliographic and authority control files are usually accessed only by the library staff i.e., those who are involved in cataloguing. Users may be allowed free access to the catalogue/ databases; sometimes users are even allowed to access authority control file but not allowed to edit the authority control file.

An item file is primarily maintained and operated by the library staff to provide services like circulation, document location, etc. The shelf list and accession file are usually operated and maintained by the librarian.

The concept of main entry in any ACS is not that important as compared to the card catalogue, since any data element may retrieve the entire record. Further, in recent years, considerable attention has been given to 'authority control device' in ACS, since it is necessary for effective

use in online public access catalogue (OPAC). Authority control service of any other bibliographical information system can also be adopted, without much difficulty, in the local ACS.

In a typical ACS, cataloguing and database management modules must have 'interfaces' with other modules. However, editing capabilities are to be made available only at designated staff terminals; there must be a provision for error-check module to detect and correct common errors. In any ACS, the provision should be made to share the bibliographic file by all its components. It must have the capacity to provide full MARC bibliographic records and the necessary index. It must accept, retain and output complete bibliographic records either in MARC or Common Communication Format (CCF) or any other format similar with I S O 2079 standard. It must be able to accommodate and allow access by a variety of classification schedules.

Item file consists of records pertaining to items; items may be monographs, serials, Govt. documents, media, or any other type of materials. Item records contain an item-specific label number, indication of adult or juvenile level, fine level, call number, location, holding facility, and loan period. It also contains the due date, last discharge date, number of circulations since a specified date, holds against the item, etc. This file is maintained primarily for ACCS, especially in the inventory system. The system must be capable of supporting four levels of record display:

- 1. Level 1 (Minimum) :** Author, title, call number, publication date
- 2. Level 2 (Brief):** Location, call number, main entry, title, sub-title, series, edition, holdings, circulation status
- 3. Level 3 (Full):** The data elements as in Level 1 along with notes, and other information normally found in a catalogue card.
- 4. Level 4 (Full MARC):** Including all tags, indicators, subject codes, fixed field and variable field data elements.

### **CONCLUSION**

Digital technology has raised the hopes and expectations of people to face the challenges of not only bridging the gap between the information rich and the information poor in the country, but also uplifting the level of development in all its different facets. Major responsibility now rests on the decision makers, technological experts, librarians, educationists, social workers, legal experts, publishing industry as well as the local institutions to play their

respective roles in bringing digital information in need based comprehensible form and language to the diverse clientele of the country. No agency can really work in isolation to reach the expected goal in the right manner. Therefore coordinating agencies may have to be established on a distributed regional basis to understand local requirements and thereby assist policy planners in preparing proper guidelines for useful and sustainable digitization Programmes. The available technical infrastructure and the networks in existence may now be utilized while initiatives for more sophisticated technology becomes successful in creating proper infrastructure to deal with the multi-lingual and multi sect oral information required for the vast majority of Indians. Just as the audiovisual media such as TV and radio have reached every corner of India, digital technology will one day become a household facility in distant parts of the country. Since Indian decision makers have now understood that Information is power and information based decision making has become the order of the day, the Government of India and other agencies are taking necessary steps to improve the telecommunication and other technical facilities to make IT based Information access a reality in the true sense so that there can be substantial improvement in the quality of life of every Indian.

Library automation activities are gaining momentum throughout the state. It is quite a good sign that SOUL is now available at an affordable cost as a comprehensive library automation package. However, librarians should be prepared to meet the challenges. They should acquire adequate knowledge about the hardware and software options available. All libraries should use standard software packages for automation and database creation to facilitate the exchange of bibliographic records between libraries. Databases may preferably be created in the MARC21 format because most libraries at the international level follow this. There is need for continuous monitoring of automation activities for improvement of the situation and for meeting the future needs.

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