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## **Unit 4 □ Computer based Serials Control**

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### *Structure*

- 4.0 Objectives**
- 4.1 Introduction**
- 4.2 Benefits**
- 4.3 Infrastructure**
- 4.4 Subsystem and their functions**
- 4.5 Standards**
- 4.6 Interfaces with other subsystems**
- 4.7 File Structure for computerized serials control system**
- 4.8 Exercise**

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### **4.0 Objectives**

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The objectives of the Unit are to identify :

- Functional areas of computer based serials management
- Major steps involved in various areas of serials management
- Basic data elements of different files/reports etc.

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### **4.1 Introduction**

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The question of management of serials by computer produces mixed reactions. Some believe that it is most difficult operations to computerize because of idiosyncrasies of serials. Others claim that it is the idiosyncrasies that make management of serials a good candidate for the computerization. Major idiosyncrasies of the serials systems are :

- Different publication schedules (frequencies)
- Change of
  - Title of the serial
  - Publisher of the Serial
- Sometimes, a serial may split or certain serials may merge to form a new serial.
- Publishers may issue special issues, index, separate title page for each volume/ combined title page for all volumes for a particular subscription year.

- It is necessary to make the payment in foreign currencies or to its equivalent local currency in advance
- Publisher may cease publication
- The library may discontinue subscription permanently and/or temporarily.
- Serials issues numbering system. In most of the cases, serials issue number start with 1 for each new volumes. However, serials issue number may be continued irrespective of change of volume number.
- Serials may starts at different points of time in a calendar year.
- Sometimes some issues of serials may be published as combined issue.
- A serial may have more than one volume per year.
- Some serials may be available only as Online from the start or at certain point of time. That is, the library may have only the Online serial or the library may have printed copy up to certain time, and afterwards only the online version is available in the library.

Serials Management adds, edits, deletes, and displays data related to serials, journals, periodicals, and any other materials that are published more than once with some relationship between the issues. Serials Management (hereinafter Serials) functions should be integrated with the other major functions : Cataloguing, Circulation, Online Public Catalogue (OPAC), and Reports. Therefore, changes in Serials should be reflected throughout the system.

A bibliographic record in the catalogue represents all serials received by the library. This may include print serials and electronic serials. Print serial records contain holdings information for all serials as well as links to electronic format if also available.

Circulating copies of print periodicals should be bar-coded and the specific issues entered into the catalog. They are attached to the serial bibliographic record for that title.

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## **4.2 Benefits**

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The computerization of serials control is important because of the fact that many libraries spend more than 75-80% of their budget on serials. It calls for management of large number of paper files. Considerable manual efforts are needed for the management of serials. The computerization may :

- Reduce the drudgery and error proneness of manual system in relation to ordering, renewals, check-in of loose issues etc.

- Offer greater control over budget management
- Improve claim monitoring
- It may also facilitate cooperative serials acquisition by libraries.
- Improve articles delivery service

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## **4.3 Infrastructure**

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Infrastructures necessary for a computer based serials control system are access to the :

- External databases
- Internal databases

### **4.3.1 Access to external databases**

Bibliographic verification of new serial is important in subscription management operation. It will also enable data import possibilities. In a computerized system, the serials control module may access the web site of the publisher and/or union catalogue of serials of a given library network. Such access would help in informed decision making and more accurate bibliographic descriptions etc. Similarly, the module may access an authorized site to verify the exchange rate etc.

### **4.3.2 Access to internal files**

A computerized serials control system in an integrated library automation environment requires access to the following types of internal files/databases :

- Library's OPAC
- Master file of Serials
- Master file of Vendors
- Master file of Publisher
- Budget File
- Invoice File
- Subscription/renewals files

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## **4.4 Subsystems and their Functions**

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A computer based serials control system could be divided into several subsystems based on the discrete functions that are required to perform. The serials control module must control the receipt of journals, series and supplements, using the database common to all other modules, so no information is duplicated. For serial subscriptions, the serials control module must include the following capabilities :

- Subscription Management
- Current Issue Registration [check-in /Receiving]
- Claim monitoring
- Routing (Obsolete)
- Information Retrieval
- Bindery preparation
- Union List of Serials Subsystem
- Reporting

### **Subscription Management Subsystem**

It performs a pre-order search and handle renewals, new subscription and fund control of serials. Typically, this module supports the following activities :

- The Serials Control module must detect and alert operator about duplicated between firm orders and subscription orders for monographs in series.
- Pre order search to avoid duplicate ordering to same serial
- Provide alert for irregular serials
- Provide renewal alerts
- Place orders for new serials
- Place renewal orders for serials that are already on subscription in earlier years.
- Facilitate acquisition of serials on exchanges or as gifts
- Control expenditure.

### **Current Issue Registration [Check-In/Receiving] Subsystem**

This subsystem facilitates registration of loose issues. Each serials control (Check-in) record must :

- be associated with a title in the catalogue
- designate whether or not to enter copy specific information into the catalogue at check-in
- establish the number of latest issues to display in the OPAC, with an authorized operator able to override this designation at check-in
- accept the loading of data for titles held by other libraries and not controlled by the system for output in union list
- record and maintain discard information, for producing automatic discard alerts and instructional slips for disposal of issues
- registration of multiple issues in a single transaction and producing alert for missing issue (already due but not received yet)

- Facilitating recording of special issue, annual volume, title page and index.
- Registration of duplicate copies.

### **Claim Monitoring**

The Serials Control module must flag items as missing, overdue, duplicate, or to be retained for reconsideration. The Serials Control module must enable an authorized operator :

- to automatically generate claim notices at intervals specified, in printed and machine-readable format
- to add a claim to the claim list for a title by filling in a screen workform
- to send as many claims as desired for a missing issue or copy
- to specify the text of each claim
- to determine claim action dates by expected receipt dates combined with an operator-specified claim interval
- to change the claim interval for each title at any time
- to identify issues requiring second and third claims according to library determined time legs that may be defined for various item types
- to identify items for which three claims have been issued without a response being recorded, and make them available for staff review to determine further action
- The Serials Control module must enable recording specific details of responses to claims.

Using the serials control record pattern, the Serials Check-in and Control module must have the ability to generate predictions, expected issues, for each serial. A prediction record must contain information about a particular issue such as enumeration, chronology, and number of copies expected. At the Library's discretion, predictions may be generated as part of the receipt process once the last predicted issue has been received.

### **Routing (Obsolete)**

The Serials Check-in and Control module must support both formal and informal routing lists. Using formal routing, each routed issue is charged to the first user on the associated routing list. As each user returns the issue to a designated point, the issue is discharged and then automatically charged to the next user on the routing list. With informal routing, staff attaches printed routing slips to the copy being routed. With formal serials routing, the Serials Check-in and Control module must consult each user's priority rank when establishing the order of recipients. Users with higher rank should appear above lowered ranked users within the routing list.

### **Binding subsystem**

This subsystem manages and facilitates binding requirements of a serials binding department. Certain typical functions are :

- Alerting staff about completion of a volume after receiving the last issue of the volume.
- Allow staff to review the situation in a batch mode. Here the staff may provide cut-off date and get a detailed list
- Produces binding orders
- Facilitate receiving and accessioning of bound volumes of serials.

### **Information Retrieval (Search Facility)**

The serials Control module must provide the ability to search for records by :

- Keyword search of every indexed bibliographic field
- Vendor
- Fund number/Fund Code
- Purchase order number
- Location
- System assigned number
- Bibliographic utility assigned number

### **Union List of Serials Subsystem**

This subsystem is important if the concerned library takes part in library network and/or a part of multiple libraries of an organization/institute. The basic functions are :

- Information Retrieval Interface
- Consolidation of holdings information of all serials.

### **Reports**

The Reports module must be fully-integrated with all other system modules, and provide a comprehensive suite of library-customizable report templates. The Reports module must enable an authorized operator to schedule production of report output at a specified date and time and on a regular periodic basis, such as daily, weekly, monthly, and at pre-specified times. The Reports module must enable an authorized operator to :

- View completed reports on screen or to e-mail or print the report, at the operator's convenience.

- Select items for inclusion based on any combination of bibliographic information (using full Boolean word and phrase searching) and on any combination of control information, for example collection, current status, number of circulations, number of holds, classification, and accessions date.
- Specify the starting date-and-time and ending date-and-time that the report is to cover on reports involving historical data.
- Use same user interface as other modules.
- Perform housekeeping tasks
- Select customize, name, save and schedule reports
- Display and/or e-mail finished reports

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## **4.5 Standards**

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The Library, or each library in a multi library system, may maintain its own serials control record. The serials control module must support the following industry standards :

- SISAC checking with SICI barcode scanning
- MARC21 Format for Holdings Data (MFHD)
- If the library desires, automatically generate multi-library holdings data for the 852, 8533, and 863 holdings tags
- Holdings record follows the punctuation as described in Z39.71
- Supports NISO Z39.45 Claims for Missing Issues of Serials
- Support NISO Z39.55 Computerized Serials Orders, Claims, Cancellations
- Support NISO Z39.56 Serial Item and Contribution Identifier (SICI)
- Offer interface to third-party binding software application (e.g., LINCPlus)

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## **4.6 Interfaces with other library automation subsystems**

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In an integrated computerized library environment, it should be possible for one module to interact/use data and files of other modules. The computerized serials control system should have access/interfaces to the following subsystems :

- Cataloguing/Bibliographic Description
- OPAC
- Circulation
- System Management

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## 4.7 File Structure for Computerized Serials Control System

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There are certain similarities between computerized acquisition system and a computerized serials control system. In an integrated computerized serials control system, the common files are shared by more than one subsystem. Considering the idiosyncrasies of serials, the following files may be maintained and/or accessed :

- Bibliographic File
- Master File for Serials
- Binding File for Serials
- Binding Specification File
- Holdings File
  - New/Loose/Current Issues
  - Bound Volumes
- Budget File
- Approval file
- Order File
- Invoice File
- Vendor/Publisher File
- Currency File
- Exchange Rate File

This is an illustrative example of required data files with individual data elements for unique files of the system :

### **Bibliographic File**

It holds permanent data about serials. Each record of this file contains bibliographic details of the serial as per MARC21 and any other agreed international standard for bibliographic description of serials. The link may BIB-ID field.

### **Master File-Serials**

It holds data relevant for the current year subscription/renewals.

- Serial-ID (Primary key) : Generate automatically
- Key Title/Serial Title
- Publisher
- ISSN
- BIB-ID



- Holding-ID : Link to records of the serial in the Holding File
- Current Subscription Data
  - Starting Date
  - Ending Date
  - Number of volumes per year
  - Stating Issue Number
  - Continuous Issue No : Yes/No
  - Number of Issues per volume
  - Frequency
  - Order-ID
  - Physical Form
- Mode of Subscription : Direct/Vendor
- Separate Index Page
- Separate Title Page
- Binding
  - Yes/No
  - Binding-ID
  - Alert : Yes/No
- URL

#### **Binding Specification File**

- Binding-ID
- Spine Title
- Class No
- Book Number
- Volume Number Format
- Issue Number Foramt
- Binding Type
- Binding Colour
- Library Name Format
- Note, if any

#### **Holdings File**

The complication of serials cataloguing is that some of the holdings of serials are in bound form while others are held as loose issues until that they are ready for binding.

Library accession only bound volumes. Both these forms are holdings and they must be available in the holdings database/catalogue. The sample fields are :

- Holding-ID : Unique ID for each physical volume (loose/bound). Generated automatically.
- BIB-ID
- Library-ID (In case of Union Catalogue of Serials)
- Location
- Barcode/Accession Number
- Circulation-ID
- Class Number
- Book Number
- Volume Number
- Issue Number
- Copy Number
- Starting Volume Number (in case of bound volume)
- End Volume Number (In case of bound volume)
- Starting Issue Number (In case of bound volume)
- End Issue Number (In case of bound volume)
- Physical Status : Loose/Bound
- Expected Date (In case of 1<sup>st</sup> issue)
- Received on
- Claim-Count
- Binding-Status

#### **References and Further Reading List**

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## **4.8 Exercise**

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1. Discuss various idiosyncrasies of serials.
2. Describe the subsystems and their functions of a computer based serials control system.
3. Briefly discuss standers, which are applicable in serials control system.