International Journal of Library Automation, Networking and Consortia.
Volume 1, Number 1 (2015), pp. 1-15

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Comparative Study of Library Automation Software (Special Reference of SOUL and TLSS)

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Abstract

This study aims to present a comparative study of library automation software special reference of SOUL and TLSS, Computer and communication technologies have brought revolutionary changes in the information acquisition, Processing, storage retrieval and dissemination keeping in view the latest friends information technology. There are so many software developed the field in management of Library. Which provides a total solution for Library Automation like SOUL, CDS/ISIS, LIBSYS, D Space, TLSS and etc. which software can use in Library according to needs? Present study based on the comparison between SOUL and TLSS.

Keywords: Library Software; SOUL, TLSS; Impact of IT; Library Automation; Resource Sharing.

Introduction of IT

IT (Information Technology) is electronic technologies used for collecting storing processing and communicating information. There are two main categories those which process information (such as computer system); and those which disseminate information (such as telecommunication system). IT has a wider connotation for librarians who include in addition technologies like, repro micrographic Technology,

technical communication technologies and database creation and use.

The accelerating pace of technological developments has tremendously increased the ability to access, store, and process, communicate and deliver information services in libraries. Worldwide libraries have been exploring new technologies as a means of providing better and faster access to vast array of information resources and efficient information services to their users. IT has a huge potential for providing wide range of new opportunities and offering better solutions to achieve greater levels of efficiency, productivity and higher standards of quality services in libraries.

Computer and communication technologies have brought revolutionary changes in the information acquisition, Processing, storage retrieval and dissemination keeping in view the latest friends information technology,

There are so many software developed the field in management of Library. Which provides a total solution for Library Automation like SOUL, CDS/ISIS, LIBSYS, DSpace, TLSS and etc. which software can use in Library according to needs?

Importance of IT in Libraries

It provides need based browsing and retrospective research services to the users

- It help large number of databases on CD-ROM is inevitable.
- In order to avoid routine and redundant activities, the IT will come to help.
- It encourage networking and resource sharing at local level, IT is very useful.
- It help access to a number of national and International Journals which are being published only machine readable form, one has two switch over to new technology.
- It retrieve and disseminate the Information in user defined format IT is necessary.
- Users access Library catalogues database of other Libraries through Library network using IT components. IT place an important role to improve the cost effectiveness of library operations. The modern technology helps a lot thus the adaptation of IT. Using IT Traditional Libraries save their time, space and manpower providing good library services to the users.

Impact of IT in Libraries

In the present era IT biased every area of knowledge. The libraries are also influenced by the information technology .The present sinerio Library has adopted new technologies for information services not only in library services but in the variety of other catalogues, indexes, databases, CD-ROMs, manuscript collections from other libraries. Potentially, the electronic revolution makes even smaller libraries the equivalent of libraries in major research universities and scholarly institutions.

Various library and information experts, the benefits of using IT in LICs may be consolidated as

(i) Improved efficiency of library operations,
(ii) Improved quality of existing services,
(iii) Introduction new services,
(iv) Improved collection Management,
(v) Improved accuracy and control,

(vi) Increased ability to share resources,
(vii) Improved management information,
(viii) Improved image,
(ix) Rapid communication,
(x) Eliminate duplication of efforts,
(xi) Improved uniformity and standardization,
(xii) Improved users satisfaction,
(xiii) Facilitate effective utilization of funds, and
(xiv) Facilitate to market library services.

Needs on the Study

SOUL (software For University Libraries) developed by INFLIBNET. It is Library management software and TLSS (Total Library Software system) developed by Total IT solution Pvt. Ltd. It is also Library Management software. Both are library management software. The SOUL and TLSS comparison is the need of present study. Utility, advantages and disadvantages of both software's also search by this study

Objectives of the Study

SOUL and TLSS both are library management software. The objectives of the study are given below

1. To know the special features of SOUL and TLSS
2. Difference between SOUL and TLSS
3. Flexibility of both soft wares
4. Usefulness of both soft wares in university libraries.
5. To know about the services provided by the SOUL and TLSS

Scope and Limitations of the study

The scope of present study is limited to SOUL and TLSS modules available in central library DAVV.

SOUL software and TLSS software both are Library management software and different modules are available in these software. Some different qualities have in SOUL software and TLSS software. I have been Compaired among some points.

Introduction of SOUL

The abbreviation of Software of University Libraries is SOUL. The SOUL is state-of-the-art library automation software designed and developed by the INFLIBNET. It is user-friendly software developed to work under client-server environment. Although looking at the name of the software, one may think that it is meant for University libraries only, but in fact it is flexible enough to be used for automating any type or size of library in India. While designing this software, the international standards, bibliographic formats, networking protocols, and typical functions of all types and sizes of libraries, particularly at university level, have been taken into account. The functions have been grouped into six categories, looking into the functional divisions of Indian University libraries. At present SOUL uses RDBMS on Windows N.T. operating system as back end to store and retrieve the data. However, keeping in view

the trends in IT towards Linux operating system, efforts are under way also to provide SOUL to work on Linux platform. The inputs received from expert team consisting of practicing librarians and the feed backs received from users of our earlier software, ILMS, have given a strong base for designing this software. SOUL is near total solution offered by INFLIBNET to Indian libraries. It puts library staff at ease in exploring all the functions to their advantages with the help of professionally prepared manual.

Hardware and Software Requirement

The minimum hardware and software configuration required to use the SOUL is given below

Hardware Requirement

Server

- Pentium @233 MHz with 64 MB RAM
- 1.2 GB HDD
- 32 x CDROM Drive
- 1.44" Floppy Drive
- Color Monitor (SVGA)
- Ethernet card 10/100 Mbps
- Windows-NT Operating System
- MS-SQL Server 6.

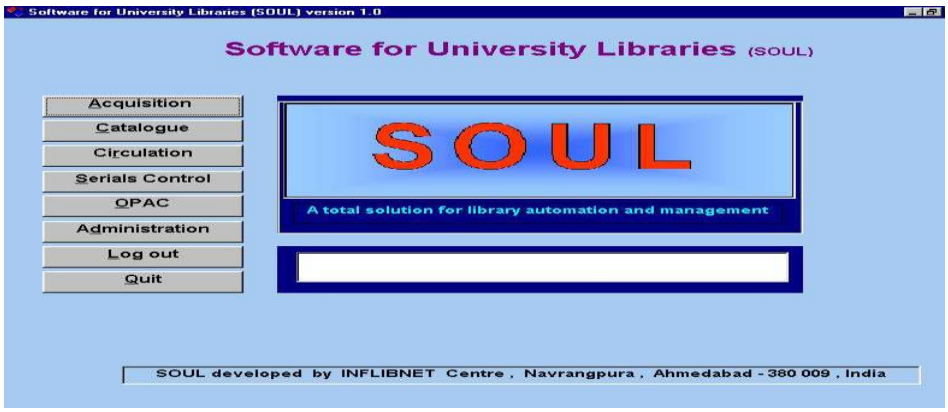
Software Requirements

Client

- Pentium @233 MHz with 32 MB RAM
- 1.2GB HDD with 10MB Free space
- 1.44" Floppy Drive
- Color Monitor (SVGA)
- Ethernet card 10/100 Mbps
- Windows-95 Operating System.

Modules

The SOUL has been divided into following six broad modules as shown in the Figure-1



These modules have further been divided into sub-modules looking at the nature of functions handled by various functional divisions in University libraries. Brief descriptions of the same along with first screens have been given in the following pages.

Acquisition Module

This particular module provides facilities to handle work relating to acquisition of reading materials of all types except serials, starting from suggestion / recommendation by faculty till accessioning, invoice processing. Acquisition module comprises following six broad sub-modules as given below-

Cataloguing Module

Catalogue module function begins with selecting the items that have already been accessioned in the previous module and furnishing rest of the information as per AACR-II rules. Providing user services such as recent addition services, CAS, creation and updating of authority files etc. are other major functions supported by SOUL. A comprehensive worksheet covering almost every field facilitates data entry of all types of books, conference proceedings, theses etc. Facility to create database in the regional languages, using respective scripts is also provided. This module allows the library staff to conduct comprehensive searches for existing items before cataloguing new items and has provision of import and export of records and retrospective conversion. Functionally this module has been organized into following sub modules as given below.

Circulation Module

Circulation being vital front-end function of any library, sufficient care has been taken in designing this module to achieve transactions within minimum possible time. This module has provision for all possible function handled in a typical academic library, i.e. membership, issues, returns, ILL, reminders, over dues, reservations, recall etc. All these functions have been organized into following eight logical sub-modules.

Online Public Access Catalogue Module (OPAC)

One of the major attractions of SOUL is that it has a powerful Online Public Access Catalogue as given in figure 6 with a choice of search options and variety of display formats. OPAC is a dynamic information desk that allows library staff to post library calendar, library rules and regulations, announcements, or any other information of user interest. SOUL increases the functionality of library's OPAC terminals by allowing the users to access the internal as well as external resources. This enables the users to access various databases developed at INFLIBNET. Library can keep entire collection available at users fingertips. This powerful, yet easy-to-use and user friendly searching tool allows user to quickly find the materials in the library. Some of the major features of OPAC are

- SOUL includes Boolean operation when more than one search option is to be used.
- Search results can be sorted according to the preference of search item.
- User has option to select variety of display formats.
- Display of records according to AACR-II format.
- Easy and quick searches with options.
- Status of each book starting from acquisition module is reflected.
- Search key fields, such as, author, title, keywords, class number, accession number, etc.
- Accessible through the GUI based web browsers like Netscape Communicator, Internet Explorer etc.,
- User can see the status of currently borrowed items by entering his/her borrower number.
- Search results can be saved and printed.
- Selection of databases can be made according to the choice of users.

Administration Module

The library staff to use various modules. Assigning login and password to use each module of the system is done by the system administrator. The security function, backups, recovery of data and other utility functions are some of the features added under this module. Users have been categorized into three levels looking into nature of functions handled by the staff at different levels. This software is intended to be provided to all the university libraries, who have been covered under INFLIBNET for which a separate agreement will have to be signed by each library. An extensive

training in SOUL will be provided to the library staff on-site upon its installation by the INFLIBNET staff. For others who are interested in using this software, particularly public funded organizations, separate modalities are being worked out including pricing, support, training etc. In due course different versions to work on different platforms suiting the needs of other libraries will be brought out. We hope that, with the release of first version of SOUL, the university library automation will get a much needed boost.

Introduction of TLSS

Library is an amalgamation of vivid variety of knowledge. In itself it maintains a huge collection and cater to many different clientele. Due to this it emerges out to be a complex entity. To carry out various operations in library effectively there are a need for automation in Libraries. The growing awareness of communication technology and its remunerative methodology of information acquisition, processing, storage, retrieval and dissemination has indeed helped a lot in working towards creating a complete library automation software. Keeping in view the latest trend in information technology, "Total Library Solution has developed window based library management software called "TOTAL LIBRARY SOFTWARE SOLUTION". Its main focus is to "Improve Knowledge Delivery through Superior Technology".

TLSS is a full-featured library system. It is a window based on simple point and click navigation; the system is easy and fun for library patrons and staff. TLSS is designed with a consistent, intuitive interface familiar to anyone who has used Microsoft Office. One can explore the entire system with just a few mouse clicks, yet behind the simple interface lies a powerful database engine capable of maintaining millions of records. This user-friendly software is quite easy to work with. The main modules are

The Goals of the Software are

- Achieve corporate goals of improved efficiency, reduced costs and increased revenues.
- Retrieve and use knowledge more efficiently
- Manage library or information center more effectively.

TLSS is a multi-user Library Management System. It runs on various operating system environments like WINDOWS 95, WINDOWS 98, WINDOWS 2000, WINDOWS XP, WINDOWS NT, UNIX / Linux, Sun Spark. TLSS support databases like ACCESS, SQL / MSQL, FoxPro, Dbase, ORACLE etc.

Hardware Requirement

The section describes the hardware / software requirements for installing TLSS across the platforms.

Platforms

TLSS is supported by WINDOWS 95, WINDOWS 98, WINDOWS 2000, WINDOWS XP and WINDOWS NT platforms. It can be installed either in LAN or Standalone systems.

RAM Requirements

RAM requirements on server would depend on the number of workstations/ nodes / clients attached to the server. But it would approximately around 256 MB for Client and 512 MB Ram for server.

Installation Procedure

Installation would be through an auto run CD. Just insert the CD in the CD-Drive, software installation would take place automatically.

Functions Security

To restrict the unauthorized access to the various functions of the TLSS, there is a facility to determine valid users and assigning them access to specific functions depending on the concerned categories of users as per the library requirement.

Only the head librarian or super user can define the function security. If TLSS is logged on with super user, it has access to all the functions of TLSS

Modules

The contents describe the procedures for installing of TLSS under Windows (either LAN or Standalone environments).

Library Guideline Module

This module is the gateway of the software, through which a user can develop his required customized solutions. It is the parameter setting module for the entire automation. In total, this module manages every other upcoming modules key existence. Library administration can decide and design the guidelines on whose basis; the software will take its shape. It is one time process, which is implemented throughout rest of the features. Following are the main modules within the Library Guidelines.

Main form Acquisition Module

Acquisition Module is the crux of the library software. In this module user add the data relating to books, journals, title, volume numbers, Issue numbers, frequency etc, which are going to be acquired by the Library. It generates reports for the Delivery status viz. All, Delivered, Missing issues. Along with this, acquisition module is also equipped with a powerful financial tool. It has a menu called Quotation in which user can create his desired quotation items and send the same to the publishers. On receiving the quotation, user enters the price data of different publishers. Then with the help of reporting tool of "Quotation Comparison Chart" user can have a bird's eye view of the entire price comparison. For better understanding lets have a detailed study of each submenu.

Main Form Accession Module

The accession module is for entering data of books, journals etc which are physically available in the library. The first module in this main form is the Book Accession. In this module there are two pages. First page is the General Information. In this, the first text box is the Display Period Details. The important point to note is that any item would have existence under accession only when the library get the confirm invoice/ delivery note of the item. The Supplier Information field would be displayed automatically, if the details were already added in the Acquisition module. If the case is not so then user has to add the information. The only remaining text box in which entry has to be done is the Accession No, Classification No. and the Keyword.

The second page is the Price and Location Detail. Here in the Details field, only the Pages, Condition, and Issuable text box needs entry. Other fields would come automatically. In Location Detail, user has to enter the location of the book inside the library (department, faculty etc). Then fill the options of Building, Floor, Cupboard, Shelf, Rack. Lastly in the Abstract/ Table of Content text box, user can add a small synopsis of the book, journal etc just for reference. In the end of the dialog box user can see two-text box. One is Print Barcode other is the Catalogue Card.

Main form Staff Module

The main idea of this module is to keep a record of the information pertaining to staff of the library. The information added in this module are Employee Details, Staff Attendance and Staff Leave. The form is displayed below.

Main form Member Module

The main idea of this module is to keep a record of the information pertaining to different members of the library, for example (Professor, Students, and other university employees), so that they can also avail the facility of issuing books. The information added in this module are members general information, Over Due Charges for books issued, No Due Certificate, Transfer Details, Issue Details and the finally Print Library Card along with the scan photo of the member.

Main form Supplier Module

The main idea of this module is to keep a comprehensive record of the information

pertaining to different suppliers of the library. The information added in this module are Supplier Code which is system generated. Then add name, phone, fax, website, branches. If in the acquisition model order form address is added then it will reflect itself in the Regd. Office option. Then there is an option for adding Branch Office details. Further there are Order Detail, Payment Detail and Past History. All these fields would be generated by itself, as information were added in pervious modules. The form is displayed below.

Main form Stock

The basic usage of this module is for maintaining a record of the stock pertaining to the Library. The first step in stock maintenance is to fix the Budget Detail. As shown in the picture below, first field is the budget type i.e. whether it is Library Item, Consumable Item or Fixed Assets. Then decide the item for which budget has to be allocated, like books, journals etc. Next decide the department. Lastly in the grid table, fill in the data in the columns like Financial Year, Planned, Un-Planned, Back Volumes and Others.

Main form Stationary

Fixed Assets Receipt

User has to enter all the relevant data in the below shown fields. Only Fixed Assets code would be system generated. Enter data in Budget Head, Description, Quantity, Rate Amount, Taxes, Freight Charges, Extra Charges, Invoice Amount, Model, Manufacturer, and Location Details.

Fixed Assets Transfer

This field is basically for the situation in which the fixed assets needs reshuffle within the university. In this Code would be chosen from the drop down menu, Transfer Date from the calendar, Item Description, Old Location Details would come automatically as they were already entered in the previous module. Only New Location Details needs entry.

Main Utilities Module

For user convenience this software would be providing some of the utilities, like internet access, e-mail configured to outlook express, calculator, calendar, currency conversion.

ORPAC Modules

Web ORPAC is online Reservation Public Access Catalogue. This software is basically meant for the users of the library's resources. The main function of this software is to help the user to locate the resources and if he wants to reserve it he can do it by using this software. In other words, it reduces their time in locating the book or any other resource within the library

Types of search

1. Normal Search: In this search, the person just have to fill in the book's information such as its title, author's name, subject, Publisher, ISBN No., Call No. and he will get the information regarding his query.
2. Boolean Search: This type of search facilitates the user to perform the search function in combination. The user can give a combination of either of keyword or the book number.

Main Features

SOUL Features

- Windows based user friendly software
- Well-designed screens, logically arranged functions with extensive help messages make the software user friendly.
- It is based on client server architecture allowing scalability to the users.
- It uses RDBMS to organize and query the data.
- SOUL does not need an extensive training. With very little familiarity, one can begin using it.
- It is specially designed to work in the large academic libraries, capable of handling large number of records.
- It is multi-user software and there is no limit on simultaneous accesses.
- Supports internationally known standards such as CCF and AACR II. Etc.
- Provides export and import facility and adheres to ISO 2709 format.
- Incorporates all required features to work in a networked environment i.e. LAN and WAN.
- OPAC is versatile and very user-friendly with all options in-built.
- OPAC is accessible over the web using any GUI based browsers.
- Provides comprehensive list of reports, master databases and authority files.
- Provides facility to create, view and print records in regional languages.
- Functionally it covers every conceivable operation of University library.
- Available at affordable cost.
- SOUL has been fully tested at a number of university libraries and critically evaluated by team of experts and practicing librarians.

TLSS Features

- Window based User friendly Software.
- Digital Library Creation, In-built Browser, E-Mail & Internet Facility,
- Support for Scanner & Multimedia, Loss & Recovery of Resources, Internet Connectivity, CD Module,
- Serial Control, Auto e-mail Transfer, OCR Scanning, Issue, Return Renewal & Reservation of Items
- Other resources Automatic Bar Code Reading & Writing, ISBN Information Tracing on Internet Selective Information Blocking.
- Different kinds of report printing facility Report, Printing in Various Output formats: Output to DMP,

- Laser, Bar Code Printer, Thermal Printer etc. to store the data.
- Catalog Card Format: First, we need to decide on the catalog card format, which is either Classified or AACR (Anglo-American Cataloging Rule).
- Classification Scheme: Then comes the classification scheme which decides the classification no. of a particular book. These are again of three types DDC, UDC AND CC. User can select any one of these.

Comparative Study of Soul and TLSS

S.N.	Characteristics	SOUL	TLSS	Remark
1.	Modules	**6 Module Available in SOUL software.** 1: Acquisition 2: Catalogue 3: Circulation 4: Serial Control 5: OPAC 6: Administration	13 Modules Available in TLSS software. 1: Library Guideline 2: Acquisition 3: Accession 4: Circulation 5: Staff 6: Members 7: Suppliers 8: Stock 9: Utility 10: About Us 11: OPAC 12: Inter Library Loan 13.: Stationary	TLSS provide more separate modules. But all the functions provide by the TLSS is covered in 6 modules of SOUL. TLSS does not support separate module for serial control that is most important part of university Library.
2.	Internet Connectivity	SOUL is providing Internet Connectivity using LAN and WAN.	TLSS is also providing Internet Connectivity LAN and WAN.	Both are provided internet connectivity.
3.	E-Mail Connectivity	It doesn't provide e-mail connectivity to its users.	It provides e-mail connectivity to its users.	TLSS provide e-mail connectivity so it is more user friendly than SOUL.
4.	Check Duplication	It has provided check duplicate facility by accession no. and title in total documents records.	It has also provided check duplicate facility accession no. and title in total documents records.	SOUL and TLSS both are not able to check duplication this is the major drawback of both software.
5.	Import/ export of records in standard format	It has Provides export and import facility to ISO 2709 format.	It has not provides Import and export facility.	SOUL is better than TLSS because it provide Import/ export of records in standard format
6.	Security measure	It is not fully secure. User can access all the modules available on SOUL. There is no special	TLSS restrict the unauthorized access to the various functions. There is a facility to determine valid users and	TLSS is better than SOUL because it secures data by restricting the unauthorized access. Authority can be able to

		security provided by SOUL. Users and staff members access the entire module.	assigning them access to specific functions depending on the concerned categories of users as per the library requirement. Only the head librarian or super user can define the function security. If TLSS is logged on with super user, it has access to all the functions of TLSS.	seal any module, which they want.
7.	Types of search	Different type of search available in OPAC of SOUL. Like Normal search, Boolean search and Free text search.	Different type of search available in OPAC of TLSS. Like Normal search, Boolean search and keyword search.	SOUL and TLSS both does not have any difference.
8.	Digitalization	Soul is not supported to digitalization of printing materials because it is use for Computerization of Library.	TLSS able to convert print material into digital format and store it.	Digitalization of print material is the specialty of TLSS that are not provide by SOUL.
9.	Help	This option is available in OPAC module of soul.	Help option is available in all the modules of TLSS. By using this user can do work easily in any module of TLSS.	SOUL provides facility of help only in OPAC module but TLSS is providing in all its modules.
10.	Display format	Display of records according to AACR II format. and internationally known standards such as CCF .	It only display of records according to AACR II format.	SOUL is better than TLSS because it support AACR II and CCF format also.
11.	Spelling and Grammar Check	In soul software we can't check spelling and grammar.	TLSS library Software does not support spelling and grammar check.	SOUL and TLSS both are same.
12.	Period of record	SOUL saves the record of the one-year.	TLSS saved record seven year.	TLSS save record long time than SOUL
13.	Operating system	SOUL software supports window NT, Operating system for server and window 95 for client.	TLSS Supports every platform Like window 95, window 98, window 2000, window XP, and window NT.	TLSS is better than SOUL because SOUL supports only window NT, Operating system for server and window 95 for client. But TLSS software

				every platform like window 95, window 98, window 2000, window XP, and window NT.

Finding of the Report

- Both are window based Software.
- TLSS more Modules in compare to SOUL.
- TLSS Module are easily accessible than SOUL.
- SOUL cover many Option like accession, Stock etc are covered in Catalogue.
- Membership Management, Inter Library Loan are Covered in Circulation Module.
- List of Supplier Covered in Acquisition Module of SOUL.
- SOUL is provide Separate Serial Control but TLSS is not provide separate Serial Control module.
- TLSS Supports every platform Like window 95, window 98, window 2000, window XP, window NT, but SOUL software supports only window NT, Operating system for server and window 95 for client.
- 64 and 32 Mb RAM requirement for SOUL but TLSS requirement 256 and 512 Mb RAM.
- SOUL and TLSS both are user friendly software.
- TLSS provides E-mail Connectivity to its users.
- TLSS is fully secured.
- SOUL is used for Computerization.
- TLSS is used for digitalization of Library.

Conclusion

Rapid advances in the past two decades have brought revolutionary changes in the concept, organization, functioning and management of Library and information system, through out the world. The impact of these changes is pervasive and affecting all the aspects of Library operations, information resources and services, staff skill requirements and users expectations. Worldwide Libraries have been exploring new technologies as a means of providing better and faster access to vast array information resources and efficient information services to their user. It has hung potential for providing wide range of new opportunities and offering better solutions to achieve greater levels of efficiency, productivity and higher standard of quality services in Library.

Library automation is one of the major applications of IT implies the change from manual system to the application of computers and other modern equipment to library operation and services.

In this present era Libraries have computerization and digitalization. But digitalization is the more important than computerization. I have compaired SOUL

and TLSS Library software. SOUL software is the total library management software and it helps in computerization of Library, but with the help of TLSS we can fully digitalization of Library. This is necessary of Library. Because we can easily access any documents and other information material, and save the time of users and staff. Therefore TLSS is the better than SOUL.

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