

Enhancing Circulation Services Using E-mail for Alerts and Reminders

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ABSTRACT

The success of information service is more likely to be achieved by adjusting the services to meet specific needs of an individual rather than trying to adapt the individual user to match the output of the information system. This paper provides an insight into the e-services implemented by the Information Centre and Library (IC&L) at Defence Institute of Advanced Technology DIAT (DIAT), Pune, keeping in view the users' requirements and their valuable suggestions. Paper also discusses the techniques and tools applied in further simplifying the functioning of the circulation module and ensuring smooth communication between the staff and the users in an otherwise automated library system.

Keywords: Circulation services, e-mail, alerts, reminders, *Suchika*, reservation system, overdue reminder

1. INTRODUCTION

More and more libraries are using computers for better administration, maintenance, and to provide better services to users. Library automation in the Defence Institute of Advanced Technology (DIAT), a Deemed University, was started in a big way in March 2003, with the implementation of *Suchika* software. The software helped a great deal in taking care of almost all the library activities like acquisition, articles indexing, serials control, circulation, cataloguing, maintenance and, OPAC (Online Public Access Catalog) as well as Current Awareness Services (CAS). However, DIAT received number of suggestions from the users to make the system more user friendly leading to introduction of the following new facilities:

- (i) Reservation of documents by users from OPAC during search: User is allowed to reserve documents during search, if document is already issued to another user.
- (ii) E-mail to the present borrower at the time of reservation: Once a document is reserved, an e-mail is sent to the present borrower informing him about reservation of the document.
- (iii) E-mail to user who reserved the document on check-in: Once a document has been returned by the

present user, an e-mail is sent to the user who had reserved the document informing him of the availability of the document.

- (iv) Alerts of overdue documents: Regular alerts are sent to users whose return date is due in a few days. The number of days for alerts is specified so as to avoid overdue documents.
- (v) Overdue reminders: Overdue reminders are also sent to users using e-mail informing them about the expiry of return date and requesting them to return/renew the document at the earliest.
- (vi) Online fine calculation facility for the users: This facility keeps users abreast of their document status, i.e., fine calculation for overdue documents, which they can check before coming to the library.

2. *SUCHIKA*: AN INTEGRATED LIBRARY MANAGEMENT SOFTWARE

The Information Centre & Library (IC&L), of DIAT started using computers in 2002 with LibSys Ver. 4.x. However, proper use of computers started in March 2003 with the development and implementation of *Suchika* (Fig.1). *Suchika* is an SRU compliant¹ network-enabled multiuser integrated software having varied search facilities. It is a Windows-based full-featured library

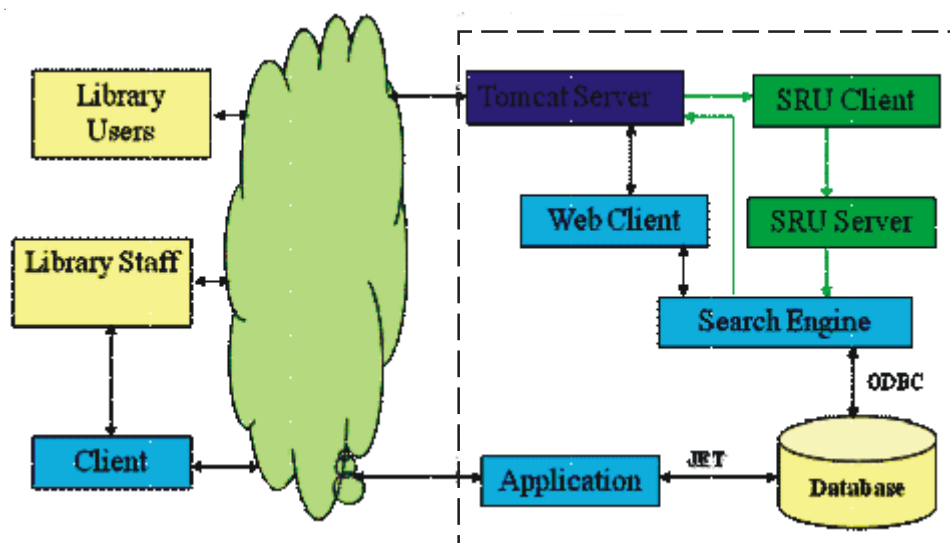


Figure 1. *Suchika* architecture.

software that provides an efficient and affordable solution for automation in any library. *Suchika* supports the following seven modules covering all library activities:

- (i) Acquisitions control: It includes requisitions from users, vendors, approvals, order processing, bill processing, accessioning, payment, etc.
- (ii) Cataloguing or retrospective conversion of library holdings and cataloguing of acquired documents through acquisition control. It also facilitates maintaining a record of written-off or withheld documents, and also allows for recalling the documents that have been lost.
- (iii) Circulation control allows easy charging, discharging, reservation and renewal of documents, membership registration, cancellation, and issue of 'no dues' certificate. Further, it also supports issue of reminders for overdue documents. There is barcode support for issue/return of documents and stock verification. Reminders are also sent for overdue documents using e-mail. Reservation of documents allows users to reserve a document even if it is already issued to another user.
- (iv) Serials control module helps in keeping track of journals and serials that are on the subscription list of any library. It helps maintain records of journals received. Reminders are issued for non-supply and missing issues. Moreover, it also gives information on tentative dates of arrival of next issues. Besides, it also helps in effective management of funds by regular online budget monitoring.
- (v) Web OPAC mainly constitutes simple and advanced search options for any type of user. This module provides all search approaches such as keywords, author, title, accession number, class number,

Boolean search, etc. OPAC also allows checking accounts and history of borrowed documents. Other functions include, list of new arrivals in the library and password protected account details of every user.

- (vi) Administration allows administrators to maintain records of masters, users, and the central database. It also permits users to access a particular module.
- (vii) Articles indexing helps in development of bibliographic and full-text database.

2.1 Technical Specifications

Suchika uses MS Access 2000 database management system on a Windows platform. Visual Basic is the front end for client-based activities, which include acquisitions control, cataloguing, serials control, articles indexing, and administration. Circulation control and Web OPAC is web enabled, i.e., these can be accessed on a network using web browser. Web-based activities are based on Java and Java Server Page (JSP) using Open Database Connectivity (ODBC), and Tomcat Web Application Server.

2.2 Limitations

All features in *Suchika* are completely user friendly, simple, requires minimum user interaction, and comprises features that are meant for efficient data handling. However, in spite of all these features, users observed limitations like no provision for recommending books or other documents as per their requirements, no provision to intimate users availability of the document in the library, and reservation facility for books limited only to the library. The emphasis rested mainly on user and library interaction, thereby leading to improvisation in the existing circulation module.

3. IMPROVEMENTS IN THE CIRCULATION MODULE

3.1 E-mail Facility

One of our objectives was to incorporate e-mail facility for sending information to users as and when required. For this purpose, a specific program has been developed using Java² and JSP, which uses JavaMail API (Application Programming Interface); JavaMail libraries, i.e., mail.jar³; and JavaBeans Activation Framework (JAF), i.e., activation.jar⁴ files. To implement mail, one should have host id (e.g., www.diat.ac.in), and library's mail id (e.g., library@diat.ac.in) to send mail. Also, institute should have its own mail server, i.e., SMTP (Simple Mail Transfer Protocol) Server that is accessible on a network. When an e-mail is sent, the client, i.e., library@diat.ac.in, connects to the SMTP server of the sender, i.e., diat.ac.in, providing address of sender, recipient, and message details. The SMTP server of the sender then connects to the SMTP server of the recipient. Recipient's SMTP server then stores the message in the inbox of receipts as shown in Fig. 2.

3.2 Reservation System

DIAT developed this module with the purpose of enabling users to reserve documents from OPAC during search in case all copies of the documents required are in circulation. In this case, users can reserve documents. If reservation of document is successful, an e-mail is sent to the present borrower. This facility is restricted to authorised users—only those users who have a login

name and password. When user comes across a document, where all of its copies are in circulation, a message 'Reserve this Document' is displayed providing the option for the reservation (Fig. 3). If user wants to reserve a document, he/she can do the same by clicking on the 'Reserve this Document' link. This link opens a new window, which asks for login name, i.e., member code and password. After successful login, details of user account are displayed showing the number of documents already issued to the user (Fig. 4). To reserve a document users have to provide the Accession Number of the document in the given text box. When user clicks on the 'Reserve' button, the document is reserved. Upon reservation, a mail is sent to the present borrower giving title and accession number of the reserved document. On return of the reserved document, user who had reserved the document is informed by e-mail regarding its availability. The document is then kept reserved for collection for a specified period failing which it is open for use by the other users.

3.3 E-mail Alerts Service

The service is being used to alert the users whose documents are due for return in a few days, thereby giving the users ample time to return/renew the document within the given time period. Library sends daily alerts to those whose return date is three days from the date of alert sent. This can be done by clicking the Alerts link given under 'E-mail' service in the circulation home page. Upon clicking the Alerts link, the back end goes through a date check comparing current date with return date of the members. When alert mail is sent, a new window

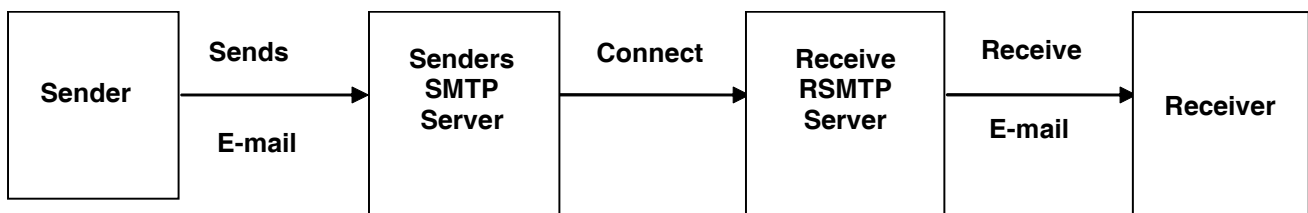


Figure 2. E-mail facility: work function.

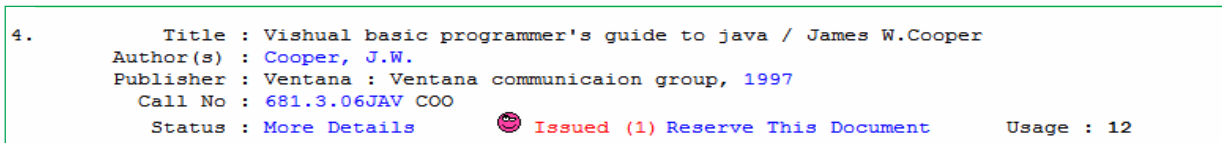


Figure 3. Reservation facility during search.

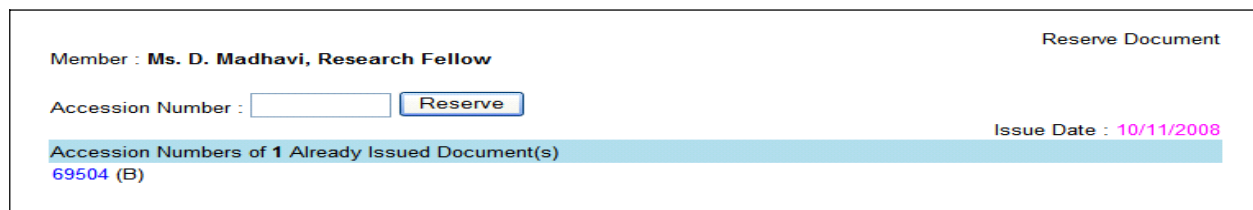


Figure 4. Details of member account.

displays the number of alerts sent and the number of documents due for return (Fig. 5).

3.4 Overdue Reminder Service

It is very difficult to keep track of the overdue documents and inform the user as and when documents fall due for return even in an automated system. Therefore, an Overdue Reminder Service (ORS) has been designed and implemented. This program identifies and keeps track of the overdue documents every day and sends a reminder to the users.

Overdue reminders are sent daily to those users whose documents are overdue. This is done by clicking on the *Reminders* link given under E-mail service in the circulation home page. Upon clicking *Reminders* link, the back end goes through a date check comparing current date with the return date of the members. An E-mail is then sent to those members whose return date has

expired. When the e-mail is sent, a new window shows the number of reminders sent to members and the number of overdue documents (Fig. 6).

3.5 Online Fine Calculation System

Fines are only used to get books back on time and make them available to others. An online fine calculation system has been started with the purpose of keeping users informed of their document status before coming to the library. The My Account facility gives status of issued documents, history of issued documents, reservation status, if any, acceptance status, and requisitions for a particular document given by other user. My Account of every user has an added feature for fine calculation. If a particular document has not been returned within the given time period, fine is calculated and charged. The expected return date and fine details are displayed in red, indicating that documents were overdue (Fig. 7).

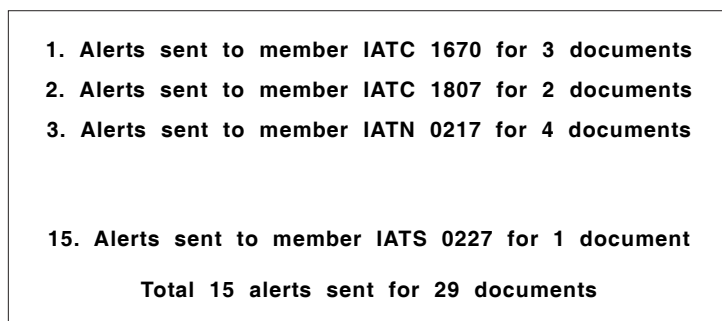


Figure 5. Number of alerts sent.

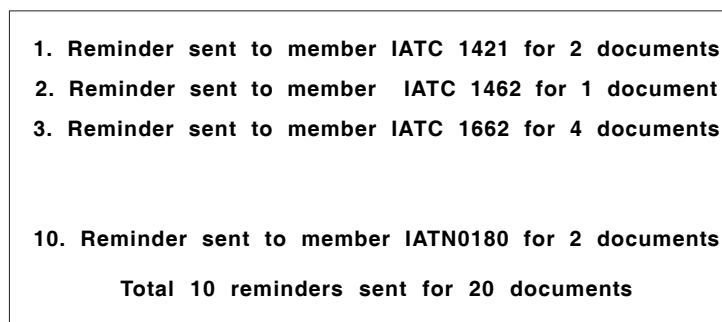


Figure 6. Number of reminders sent.

Issued Documents : J.S. Brar , Lt. Col.

S.N.	Accession No	Title of the Document	Issue Date	Expected Return Date	Fine (Rs.) Till Date
1.	45804	Handbook on weaponry	15/07/2008	15/10/2008	16.00
2.	47972	Army commander's red diary	26/08/2008	26/11/2008	0.00
3.	31097	Theory and problems of statistics in SI units	15/07/2008	15/10/2008	16.00
4.	63213	Text book of polymer science	15/07/2008	15/10/2008	16.00
5.	44882	Course in internal combustion engines	04/07/2008	04/01/2009	0.00
6.	61953	Fighting vehicles	04/07/2008	04/01/2009	0.00
7.	72106	Fighting suicide bombing : a worldwide campaign for life	10/10/2008	10/01/2009	0.00
8.	65900	Defending India	10/10/2008	10/01/2009	0.00
9.	63741	Process of war : advancing the scientific	10/10/2008	10/01/2009	0.00

Expected Return Date Indicates Overdue Documents
Please Return / Renew Immediately, If Any

Figure 7. My account: Fine charges.

4. CONCLUSION

Implementation of the e-mail service in *Suchika* has brought along tremendous benefits to our library users and given them more options to take advantage of library services. For library staff, it has made our processes more efficient and taken away the onerous tasks that were often time consuming. The initiative has been rewarding in building up rapport, and good customer relations among our staff and the users. Efforts are on to enhance e-services further to the next level of excellence and continue to add value in teaching and learning.

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