

OPEN SOURCE LIBRARY MANAGEMENT SYSTEM

A Thesis

Submitted to the Department of Computer Science of Engineering
Of

BRAC University

by

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DECLARATION

I hereby declare that this thesis is completely my own work. Materials, which I used my project found by web site, are mentioned by reference.

Signature of
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Signature of
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ABSTRACT

BRAC University's Ayesha Abed Library is not equipped with adequate software, which can access books from different branched, and sub-systems within BRAC University itself. This proves to be a problem for students and people within BRAC who could benefit within BRAC University. The present software only provides a database for existing books available or not within this single library. What is therefore required is such software that can provide access and information of all the other books, articles and journals present within BRAC .Now such software does exist named KOHA, which provides the above-mentioned benefits. However KOHA needs to be modified, customized and made compatible for BRAC University, in order for the student and employees of BRAC to use and benefit from it. This thesis paper aims to analyze KOHA and thereby provide a customized version for BRAC University.

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CHAPTER 1

INTRODUCTION

1.1 What is Integrated Library System:

Integrated library management system is a system where keep all tracks of a library operation such as items, bill, paid, and also patrons record. By this software we can operate all the library operation easily.

Integrated library system there is two interfaces one is patron and another one is for library staff. In library system the operation of a user/member/patron and staff of library is different. A user can search a book, view book list which are available in library, can issue book, renew book, can hold book, can print issue list, can edit his/her information (patron information). Online public excess catalogue, circulation, some function under serial control can operate by patron. But a staff can store bibliographic (book, CD, DVD, journal etc) record actually library materials record in database, can create patron in database, order a book, purchase a book. Acquisition, cataloging, some function under serial control, management all are operate by staff of a library.

1.2 Requirement Analysis of Library System:

In complete modern library management system there are different types of modules or features, which are:

1. **Acquisition**
2. **Cataloguing**
3. **Online Public Excess Catalogue (OPAC)**
4. **Circulation**
5. **Serial Control**
6. **Management or Report**

7. System maintenance Facilities or System Parameters

1. Acquisition: – Materials, which are purchased for library use. Activities related to obtaining library materials by purchase, exchange, or gift, including pre-order bibliographic searching, ordering and receiving materials, processing invoices, and the maintenance of the necessary records related to acquisitions. The following requirements are under the acquisition: -

a. Selection of items: What kind of books, CD, DVD etc want to a staff buy for a library .For books it could be hardcopy, softcopy or original copy.

b. Duplicate checking: A staff can find duplicate checking from that option. That means can compare between two books wheatear they are same or not.

c. Selection of vendor: A staff of a library can choose a vendor to purchase a book. In real life for purchase a book some vendor are well for some specific book so staff have to decide the vendor from the vendor list from their database.

d. Ordering: After deciding the vendor a staff of a library can order to purchase to a vendor for particular book.

e. Receipting: From that option staff of a library can check that a book is in library on time or not which is ordering to vendor.

f. Claming: If a vendor is a not supply book on time in a library staff can claim on that vendor.

g. Fund control: Fixed amount of money is assign for particular department.

So when book is purchase for a department then the balance will be minus from the actual balance.

h. Report and statistics: Create a report about the books, journal, CD, DVD etc.

Actually information about the library from that information a staff can take action for library.

2.Cataloguing: -

a. Record creation: Enter a record about books, CD, DVD etc in database in one format (MARC 21 format).

b. Duplicate checking: A staff can find duplicate checking from that option. That means can compare between two books wheatear they are same or not.

c. Record editing: A staff can edit information of a library materials.

d. Authority files: The computerized list of subject, series, and name headings used in the Online Catalog.

e. Cataloguing copies: When a staff store the materials record in database there could be occurred error in data entry like call number of book. Staff can enter same call number for two books.

f. Keyword: Any word in an item's record. In an electronic index or database, keywords can be combined together using the Boolean operators AND, OR, and NOT.

g. Import and Export data: Report about which materials import from other library or export to other library.

3. Online public excess catalogue (OPAC): - An OPAC (Online Public Access Catalog) is the electronic card catalog system, or computer you connect to when we look up library resources, such as books.

a. Normal search: Book search by keyword, title, author etc

b. Advanced search/Modify search/New search: Exact search means by author name or by book name.

c. Search strategies: It is actually search tips means how can user search a book or journal etc or the methodology or plan followed to find information on a subject or research topic.

d. Status enquiry: Information of a particular book for borrows. If it is not available then no one can borrow this book only can hold this book.

- e. **Print provision:** After issue a book a patron can print issue copy from the software. KOHA is supporting this option.
- f. **Prompts and help messages:** Actually this option help a patron to gather knowledge about software how the library operation works in particular software.
- g. **Disposition of retrieval data:** Facility a normal user and a member are different. A member can save her information in database in a particular folder.
- h. **Internet access:** Any one can see or access software through Internet.

4. Circulation: -

- a. **Patrons and items files:** Record about all the patron and materials of a library.
- b. **Setting parameters (Issue, return etc):** A single uniquely numbered or dated part of a periodical or newspaper.
- c. **Fine and overdue notice:** Material, which is not returned to the library by its due date, is considered overdue.
- d. **Hold and recalls:** A hold guarantees that when a book is returned to the circulation desk it will be saved for you.
- e. **Reservations:** From this option we can know that about a particular book which is available or reserve by some one in library.
- f. **Renewal:** An extension of the loan period for charged library materials. As long as no one else requests the book, renewals are unlimited. Renewals may be handled in person at a circulation desk, by phone, or through the online catalog.
- g. **Short-term loans:** If any book holds by more than one person the only book borrow for one week only.
- h. **Interlibrary loans:** A way to get materials owned by other libraries.

5.Serial control: - Serials include journals, periodicals, magazines, almanacs, annual reports, numbered monographs, and other materials. This term is sometimes used interchangeably with "periodical."

a. Fund control: Fixed amount of money is assign for particular department. So when book is purchase for a department then the balance will be minus from the actual balance.

b. Ordering: After deciding the vendor a staff of a library can order a book to purchase to a vendor for particular book.

c. Receipting: From that option staff of a library can check that a book is in library on time or not which is ordering to vendor. Or keep the track of patron who is not returning book to the library.

d. Claiming: If vendor or patrons are not supply the book on time staffs create a list of those persons for materials.

e. Binding: In a library staff can binding the journal in a library to access easily.

6.Management: -

a. Information :Information about the total library operation. If a staff needs any information he/she can know the information through this option.

b. Tools for the analysis of statistical information: Information about uses of books. How many times are using a particular book which user is using this book how many times.

7. System maintenance facilities: -

a. User interface: In software there is common interface for all user but some interface is different based on user.

b. Security of records and files: A library promise to all users that they keep their password, information secure.

- c. **Up-gradation:** After day-by-day lack of any software will cover. Such as In KOHA serial control was not there in 2000 to 2001 but after that they were include that option.
- d. **Customization:** We can customize some field in open source software such as KOHA.

All the above requirements are important for a complete library system.

1.3 My Thesis Objective:

The library system of our country is very poor. For example Brac University Aysha Abed Library system is not a mordern library system. They does not have some important module such as-acquisition, circulation, report etc. As a result they are doing most of work manually. They don't follow standard format such as-Machine readable cataloguing (MARC) and Z39.50 protocol. So in future when we want to network with other library we could not do that because every library system in our country using their own format. A common database system is helpful to transfer one system to another system. So we need those things to make our library complete and standard.

So we need a complete modern library system, which is less cost and efficient library system. I think Open source library system is one of the best solutions to solve our problem. Open source software is free for all and we can update our system without any cost. The most important part is those software is full featured and support standard format (ex-MARC and Z39.50 server).

CHAPTER 2

OPEN SOURCE STANDAEED LIBRARY SYSTEM

2.1 Library Automation Standard:

The standards adopted by the library industry and community that facilitate data interchange between libraries and institutions, and which are supported by most system are Machine-Readable Cataloging (MARC) and Z39.50, the information search and retrieve protocol standard.

2.2 Machine-Readable Cataloging (MARC):

MARC 21 means machine readable cataloging. It is a common format database, which is used in much software. The usefulness to use MARC 21 format is we can operate any library through own library if all library use MARC 21 format. In MARC 21 there is some rules to record the data. Such as if we want to save in our database system an author name Robert we have to use “ **100 1# \$a Robert**” this format .100 is tag for this field. Each field has particular tag number.

Actually MARC formats are standards used for the representation of bibliographic and related information for books and other library materials in machine-readable from and their communication to and from other computers.

2.3 Z39.50 protocol:

Z39.50 is generally defined as the information search and retrieve protocol standard used primarily by library and information related system. When a library buys a book they need to add biblio record to the system. If some one made this record already we don't need to create this record again. We can retrieve this record by the help of a server, which is z39.50 server. We can retrieve biblio record from remote database by this server.

2.4 Open Source Library Management Software:

But in real life problem is ILS (integrated library system) is most expensive software such as – Alice, soul, libsuite, and libsys etc. But there is some

software, which is free software for ILS such as – KOHA, Openbiblio, OpenILS, and Emilda etc

KOHA and Evergreen ILS is most popular open source software. But KOHA is most popular than others. Because Evergreen does not supported all modules such as- Acquisition and Serials Controls. But KOHA is full-featured software system. It is free for all. Katipo Communications Ltd developed KOHA in New Zealand. There is company name Liblime, they are providing service for KOHA with charge. KOHA is written in Perl. Actually KOHA meet all the requirements, which is needed in complete library system. So KOHA is one of best library system to solve our problem.

2.5 KOHA Features:

- Linux, Unix, Windows and MacOS platform.
- Web Based.
- Z39.50 (protocols) support: - Prepared by the National Information Standards Organization, Z39.50 is an information retrieval service definition and protocol specification for library applications. The standard defines how one computer system can co-operate with other systems for the purpose of searching databases and retrieving records.
- MARC21 and UNIMARC for professional cataloguers.
- Serials management module.
- Full catalogue, circulation and acquisitions system for library stock management.
- Web based OPAC system (allows the public to search the catalogue in the library and at home).
- Simple, clear search interface for all users.
- Simple and comprehensive acquisition options.

- KOHA is multi-tasking and enables updates of circulation, cataloguing and issues to occur simultaneously.

CHAPTER 3

KOHA 2.2.9 USER GUIDE

3.1 KOHA 2.2.9 User Guide on Windows Xp:

To work with KOHA we need to change some parameter in KOHA system. When you first login to KOHA select Parameters option then you can see following option there. To work with KOHA you should set up the following preferences step by step.

3.1.1 System Preferences

- 3.3.1.1 Admin
- 3.3.1.2 Acquisitions
- 3.3.1.3 Authorities
- 3.3.1.4 Catalogue
- 3.3.1.5 Circulation
- 3.3.1.6 Members
- 3.3.1.7 OPAC
- 3.3.1.8 Others

3.1.2 Setting Operating Parameters

- 3.1.2.1 Library Branches
- 3.1.2.2 Printers
- 3.1.2.3 Item Types
- 3.1.2.4 Borrower Categories

- 3.1.2.5 Issuing Rules
- 3.1.2.6 Stop Words
- 3.1.2.7 Z39.50 Servers
- 3.1.2.8 Book Funds
- 3.1.2.9 Currencies

3.1.3 Setting Bibliographic Data Parameters

- 3.1.3.1 Biblio Framework (MARC structure)
- 3.1.3.2 Authorised values
- 3.1.3.3 Biblio Framework (MARC structure)
 - 1. Authorised values
 - 2. Thesaurus
 - 3. Plugins
 - 4. Leader plugins
 - 5. Link
- 3.1.3.4 Link KOHA-MARC DB
- 3.1.3.5 MARC Check
- 3.1.3.6 Thesaurus Structure

3.1.4. Tools

- 3.1.4.1 MARC Biblio Export
- 3.1.4.2 Upload MARC Records into Reservoir
- 3.1.4.3 Generate barcodes

3.1.System Preferences:

3.1.1 Admin:

In admin part there is two options first one is data format and another one is insecure option.

3.1.1.1 Dateformat:

In this option there is three types options for dateformat:

“metric” = dd/mm/yyyy

“us” = mm/dd/yyyy

“iso” = yyyy/mm/dd

So you can choose any one option for your KOHA system.

3.1.1.2 Insecure:

There are two options “Yes” and “NO”. So the better option if you choose no because your KOHA is going to use in regular library so you have to turn on for security. If you select “Yes” then all information is open to every one without login.

3.1.2Acquisitions:

There are two parts in this filed first one is **acquisitions** and another one is **gist**.

3.1.2.1 acquisitions:

The choices are either "normal" or "simple."

Normal: “normal” sets the system to track orders and update budgeting and vendor information as you add materials to your collection. So if you plan to use KOHA monitor your budget and your orders with vendors, leave this preference as "normal."

Simple: ‘simple’ tells KOHA that you are going to add materials to the collection without tracking orders. If you already have a system for monitoring your budget and orders change this to "simple."

3.1.2.2 gist:

The "gist" is the "GST" (Good and Sales Tax) rate. If your local tax laws require you to pay taxes on purchases from your suppliers, enter the tax rate here,

expressed as a decimal number and not a percent. (In other words, if the tax rate is 6.5 percent, enter '. 065 ') Set to "0" if you are not required to pay tax.

Note

The "gist" preference does not apply to fees and fines you charge borrowers, so if you are required to charge tax on such fees, you will need to include the tax in the fee amounts you set in the "Item types" and "Issuing rules" parameters.

3.1.3 Authorities:

3.1.3.1 authoritysep:

This option is for what symbol is used in your language to separate the levels of your subject headings. In English, for example, subject headings and their subdivisions are separated by "--" as in "Women--United States--Bibliography." If a different symbol is used for this purpose in your language, change the value of this variable to that symbol.

3.1.4 Catalogue:

3.1.4.1 ISBD (International Standard Bibliographic Description standards):

KOHA requires that you fill this field with the proper set of instructions, or formula, for organizing your MARC tags into an ISBD-conformant display.

Libraries using MARC 21 instead of UNIMARC probably have records that already contain punctuation conforming to the Anglo-American Cataloging Rules, second edition (AACR2). A reasonably good "AACR2" display can be constructed for such libraries, too -- just put something like this in the value field for the ISBD variable:

```

#050|<label>Call Number: </label>|{082a}{050a}{ / 050b}|<br/><br/>
#100|<label>Main Entry: </label>|{100a}{ 100b}{ 100c}{ 100d}{110a}{
110b}{130a}|<br/>
#245|<label> </label>|{245a}{ 245b}{ 245c}{ 245h}{ 246i}{ 246a}|
#260||{ 250a}{ 250b}{-- 260a}{ 260b}{ 260c}|
#300|<br/><label> </label>|{300a}{ 300b}{ 300c}|<br/>
#020|<br/><label> ISBN</label>|{ 020a}{ 024a}|<br/>
#440|<br/><label> </label>|{440a}{ 440v}|<br/>
#500||{\n500a}|<br/>
#511||{511a, }|
#520|<label> </label>|{\n520a}{ 520b}|
#600|<br/><label>Subjects: </label>|{ 600a.}|
#650|<label> </label>|{\n650a }{-- 650x}{-- 650z}{-- 650y}|
#651|<label> </label>|{\n651a }{-- 651x}{-- 651z}{-- 651y}|
#852|<br/><br/><label>Held at: </label>|{\n852a}{, 852b}{, 852c}|

```

3.1.4.2 autoBarcode:

The barcode number to be assigned to items is automatically assigned by KOHA if this is set to 'yes' ('1' = 'yes') *and* you set your MARC preference to 'no.' ('0' = 'No'). You will not be asked for a starting number or for any preferred type of barcode if you choose "yes" -- you simply get whatever KOHA gives you. For most libraries, where preprinted barcodes are attached to items as they are cataloged, this will not work. In these cases, you should choose "no" and plan on adding the barcode to the catalogue record while you are adding other item information (such as price, accession date, etc.).

3.1.4.3 hide_marc:

For librarians unfamiliar with MARC, they don't want to deal with too much 'MARC', some of the complexities of tags and sub fields can be daunting. This feature hides some of those complexities. So it should be set to 0.

3.1.4.4 itemcallnumber:

This is one system preference that you may want to set after you set your other MARC parameters. This preference holds the MARC tag/sub field that is used to calculate the itemcallnumber variable. If you set this preference now, please make a note of it and keep it handy when you set your other MARC parameters. If you decide to set it after setting your other MARC parameters, don't forget to come back to it.

3.1.4.5 marc:

If you don't want MARC support then set to 'no'. If you want MARC support then set to 'yes'.

3.1.4.6 marcflavour:

In this field there are two options MARC21 and UNIMARC. Your choice will tell KOHA how to interpret your MARC records.

3.1.5 Circulation:

3.1.5.1 ReturnBeforeExpiry:

This preference, if set to 1, will not allow a borrower to borrow items past the expiration date of their membership. Instead, KOHA will recalculate the due date to be the same as the membership expiration date. So it should be set to '1'.

This feature is useful for schools, which may set students' expiration dates to be the same as their graduation dates. The library would want all items to be returned before the students graduate and depart.

3.1.5.2 maxoutstanding:

This preference sets the maximum amount of outstanding charges a borrower may owe before he/she is barred from making reserve requests. The number represents units of your local currency -- for example, "5" means "\$5.00," if the dollar is your local currency. Partial "units" will be rounded to the nearest whole unit. For example, 5.25 will not be stored as "5.25," but as "5" -- so keep it simple!

If you want to have no limits, leave this preference set at '0'.

3.1.5.3 maxreserves:

This preference sets the maximum number of active reserves a borrower can have at any one time.

3.1.5.4 noissuescharge:

This sets the maximum amount of outstanding charges a borrower may owe before he/she is barred from checking out items. As with maxoutstanding, the number represents units of your local currency.

3.1.5.5 printcirculationslips:

If your library uses receipt printers to provide borrowers with a list of items they have just checked out, you should turn this option on. If set to 1, circulation 'slips' are printed on a receipt printer connected to your server. If set to '0' slips are not printed.

3.1.6 Members:

3.1.6.1 NotifyBorrowerDeparture:

This system preference represents a number of days. If a borrower tries to check out items, and their registration is due to expire within this number of days, then

the librarian sees a warning message. For example, if a borrower's registration is due to expire on the 15th of the month and NotifyBorrowerDeparture is set to 10, then beginning on the 5th of the month the librarian will see a warning if the borrower checks out items. This is a useful feature for schools, where a student's registration often expires on the date when they are scheduled to leave the school. Compare this system preference to the ReturnBeforeExpiry.

3.1.6.2 autoMemberNum:

The membership number (patron card number) to be assigned to new library users is automatically assigned by KOHA if this is set to 'yes' ('1' = 'yes').

3.1.6.3 checkdigit:

This preference determines the type of validity checks that will be done on membership numbers (patron card numbers): none or 'Katipo' style checks. In almost all cases, you will choose 'none'.

3.1.7 OPAC

3.1.7.1 BiblioDefaultView:

There are three options – 'normal', 'marc', and 'isbd'.

normal: displays the record in the standard KOHA format, showing most of the basic bibliographic information.

marc: displays the entire MARC record from KOHA MARC database.

isbd: displays an ISBD formatted record.

3.1.7.2 LibraryName:

By this option you can change library name from KOHA ILS to your library name.

3.1.7.3 OpacPasswordChange:

This preference controls whether or not a borrower can change their password through the OPAC. But disable it when using LDAP authentication

3.1.7.4 SubscriptionHistory:

This system preference sets the type of details that OPAC users will see when they search for information about your library's periodical subscriptions. The choices are 'simplified' or 'full'

simplified

The OPAC user will see the name of the periodical, the date when the library began receiving the periodical, how often the periodical is issued, and the date when the library last renewed the subscription (or the date of the last issue received, if the library no longer subscribes). This information will be followed by a list of received issues and missing issues.

full

The OPAC user will see the name of the periodical followed by a list of issues, showing the date of each issue, the number of each issue, and the status of each issue -- arrived, awaited, late, or missing.

3.1.7.5 hidelostitems:

If you do not want items in your catalogue, which have been tagged as 'lost' to appear in the results of OPAC searches, set this preference to 'Yes'. If you always want all items displayed, regardless of their "lost" status, leave this value set to 'No'.

3.1.7.6 opaclangues:

This preference sets your language preference. For English we can choose “en” and for French we can choose ‘fr’ etc.

3.1.7.7 Opaclargeimage:

We can select our own library logo from this option. Enter a complete URL to an image; in value option we can change the logo.

3.1.7.8 opacsmallimage:

This preference allows you to substitute a custom logo for the default KOHA logo that normally appears in the upper left corner of OPAC pages other than the main page.

3.1.7.9 opacstylesheet:

In order to be compliant with the web standards recommended by the World Wide Web Consortium, KOHA makes use of cascading style sheet (CSS) files to determine many of the aspects of how a KOHA screen appears. The default CSS file for the OPAC is `opac.css`. There is also a second choice of style sheet if you set this system preference to `/opac-tmpl/css/opac2.css`.

If you would like to use your own cascading style sheet for the OPAC, enter the complete path to the file as the value of this preference. For example, the URL to the default style sheet would be `/opac-tmpl/default/en/includes/opac.css`.

3.1.7.10 opacthemes:

From this preference we can change theme of OPAC page. There are two types of theme-‘css’ and ‘npl’.

3.1.7.11 suggestion:

If set to 1, then the suggestion featured is activated in the OPAC. This feature allows OPAC users to suggest book purchases. When a suggestion is made in

the OPAC, it is assigned the status "ASKED." A librarian then manages the suggestion and can set the status to "REJECTED" or "ORDERED." When a book is ordered and has arrived in the library, the status becomes "AVAILABLE." Suggestions that are not yet "AVAILABLE" are visible to all users of the OPAC.

3.1.7.12 virtualshelves:

This preference turns the virtual shelves option on or off ("1" or "0"). Users who login to the OPAC can set up and manage their own "virtual bookshelves" of favorite library items if this feature is turned on.

There are three types of virtual shelves:

Private

These shelves can only be viewed or modified by the logged-in user who created them. For example, a borrower might select titles of books in the library's catalogue that he/she wants to read someday and can add these titles to a private virtual shelf.

Public

Any logged-in OPAC user can view these virtual shelves, but only the shelf creator can modify the contents. A teacher to keep a list of library items for students to read might use this type of virtual shelf.

Free

Any logged-in OPAC user can view or modify these virtual shelves. These shelves thus become a sort of 'public forum'.

3.1.8 Others:

3.1.8.1 IndependantBranches:

If this preference is turned on, all branches are treated as independent libraries working with one common database. Any staff member can create basic bibliographic records for the database, or issue and return any book in the database. But staff at one branch cannot add items to another branch, or add borrowers to another branch, nor can they modify items or borrowers that belong to another branch. The exception to this rule is that any librarians with super librarian privileges can do any of these things; they are not restricted by this system preference.

This preference does not affect the display of catalogue records in the OPAC searches will always display results from all branches.

3.1.8.2 KohaAdminEmailAddress:

This is the e-mail address that will receive requests from borrowers for modification of their records.

When borrowers login to the OPAC and review their accounts, they may see errors in their personal details. KOHA allows them to fill out a form requesting corrections to their details, and this form is then e-mailed to a library administrator for review and action. This system preference tells KOHA how to address those e-mails

3.1.8.3 MIME:

KOHA can export statistical reports to spreadsheet files in either Microsoft Excel or OpenOffice format. Select this preference to determine which format KOHA will use.

3.1.8.4 timeout:

This is the Inactivity timeout period (in seconds). If a workstation is idle for longer than this period, the user will have to login again. So we need to set this preference.

3.1.2 Setting Operating Parameters

- 3.1.2.1 Library Branches
- 3.1.2.2 Printers
- 3.1.2.3 Item Types
- 3.1.2.4 Borrower Categories
- 3.1.2.5 Issuing Rules
- 3.1.2.6 Stop Words
- 3.1.2.7 Z39.50 Servers
- 3.1.2.8 Book Funds
- 3.1.2.9 Currencies

3.1.2.1 Library branches:

This preference has two options first one is Branches and another one is Branches Categories. First you need to add some categories of branches. Then add some branches .If you want to edit information then click edit button to edit information's.

3.1.2.1.1 Branch Categories:

This preference has three inputs. They are Category Code, Name, and Description. To work with KOHA we need to fill up those fields properly.

Figure: 3.1.2.1.1 Branch Categories screen

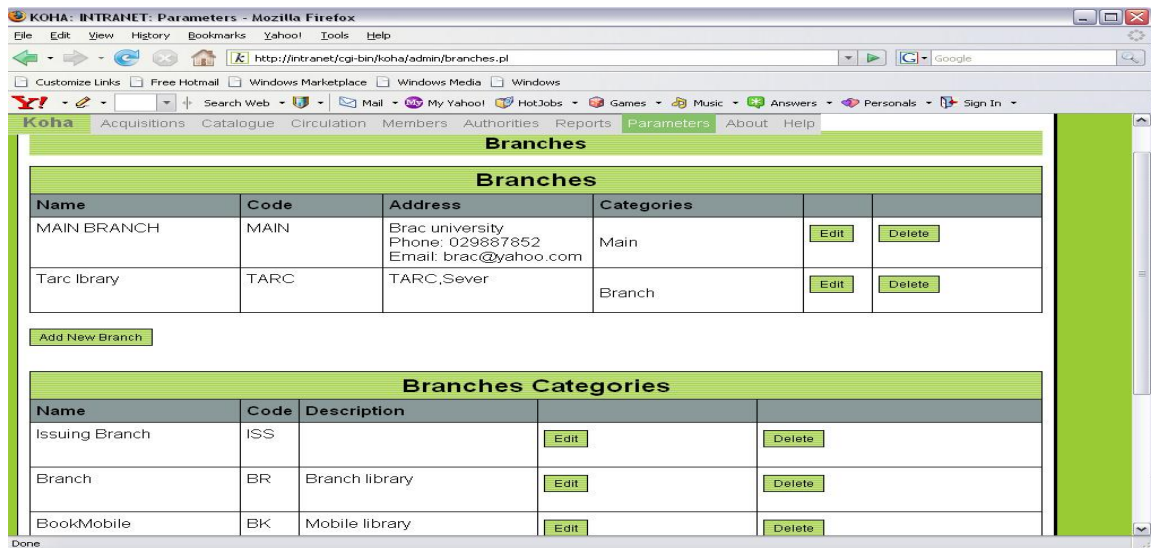
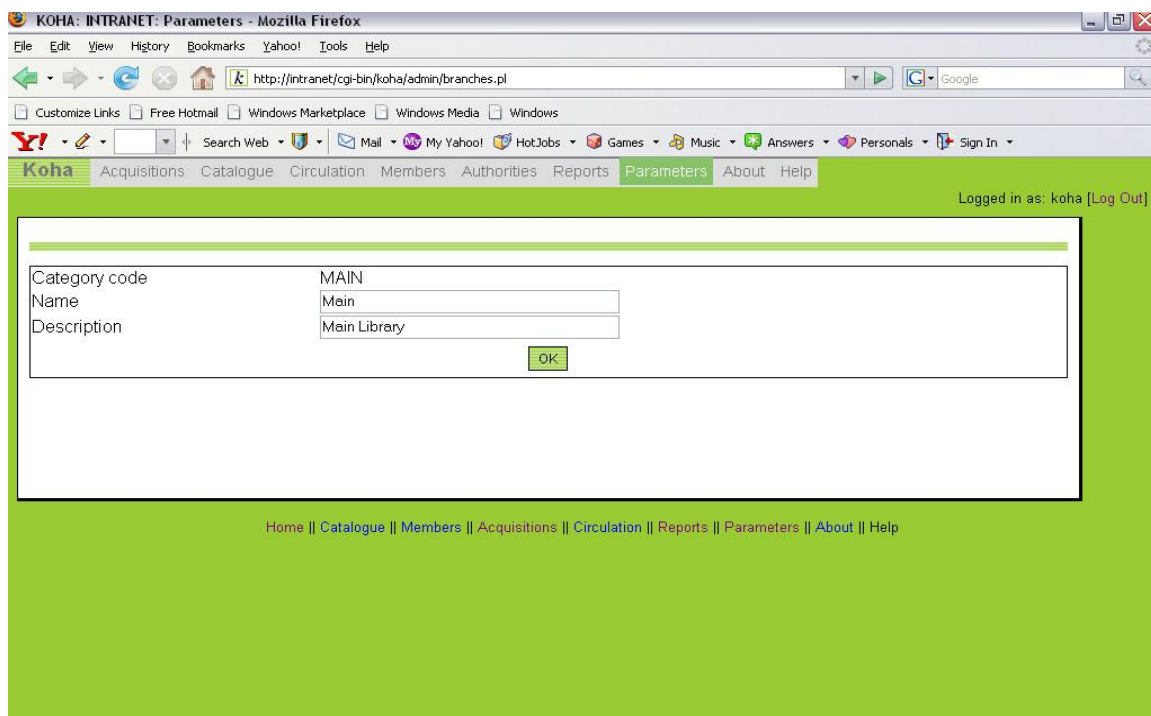


Figure: 3.1.2.1.2 Branch Categories screen



3.1.2.1.2 Branches:

After adding Branches Categories then you can add some branches. If you want to add Branch then click Add New Branch button.

To add new Branches you need to fill up some information correctly. The following information needs to add a new branch. After fill up fields click save button.

Figure 3.1. 2.1.2 Branches screen

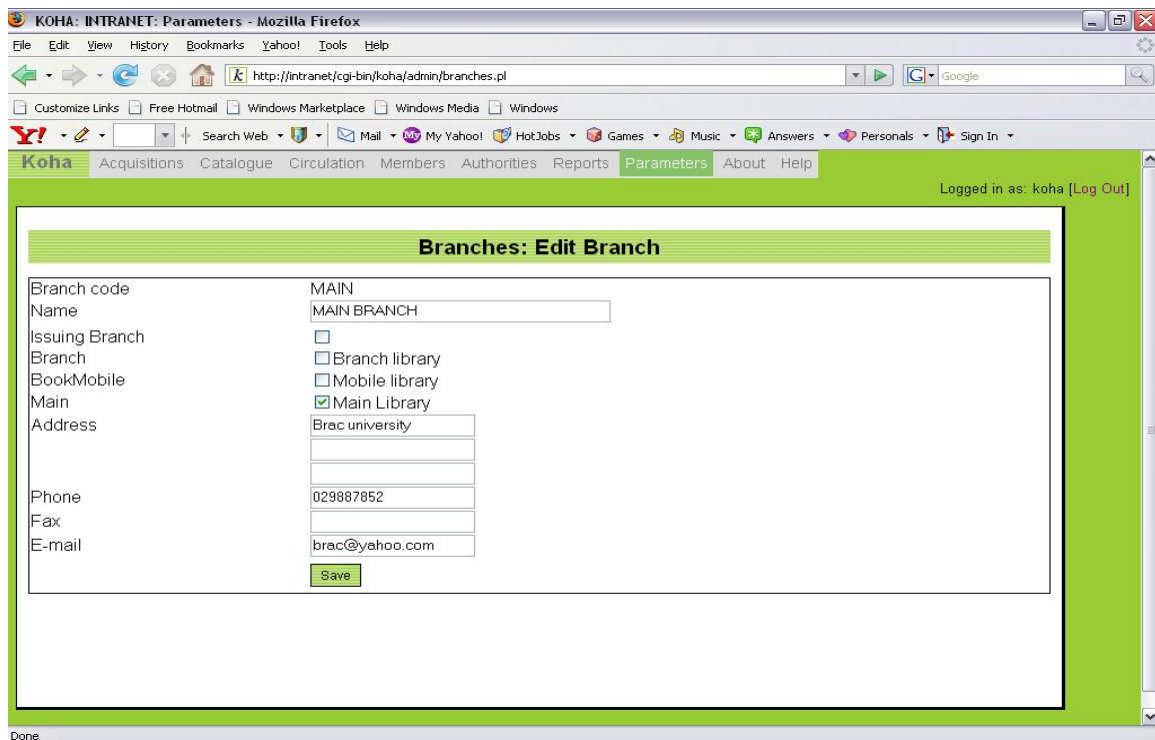
The screenshot shows a web browser window titled "KOHA: INTRANET: Parameters - Mozilla Firefox". The address bar displays "http://intranet/cgi-bin/koha/admin/branches.pl". The browser's menu bar includes File, Edit, View, History, Bookmarks, Yahoo!, Tools, and Help. The toolbar contains various icons for navigation and search. The main content area has a green header with the "Koha" logo and navigation links: Acquisitions, Catalogue, Circulation, Members, Authorities, Reports, Parameters (selected), About, and Help. A status bar at the top right indicates "Logged in as: koha [Log Out]".

The central form is titled "Branches: Add Branch" and contains the following fields and options:

- Branch code:
- Name:
- Issuing Branch: ☐
- Branch: ☐ Branch library
- BookMobile: ☐ Mobile library
- Main: ☐ Main Library
- Address:
- Phone:
- Fax:
- E-mail:

A green "Save" button is located at the bottom of the form.

Figure 3.1.2.1.2 Branches screen



Some libraries have also set up 'virtual' branches with names like 'At bindery' or 'In storage' to make it easier to pinpoint the location of items that are temporarily not available. If you are going to do this, remember that these virtual branches will appear in the OPAC just as if they were real branches, and you will need to set your issuing rules for these branches accordingly.

3.1.2.2 Printers:

If you are going to be using a printer (or several printers) that is attached to your KOHA server for producing statistical and operations reports, then you need to give each printer a name and tell KOHA how to access it. You do this by telling KOHA, which print queue to use.

Figure 3.1.2.2 Printer screen (initial)

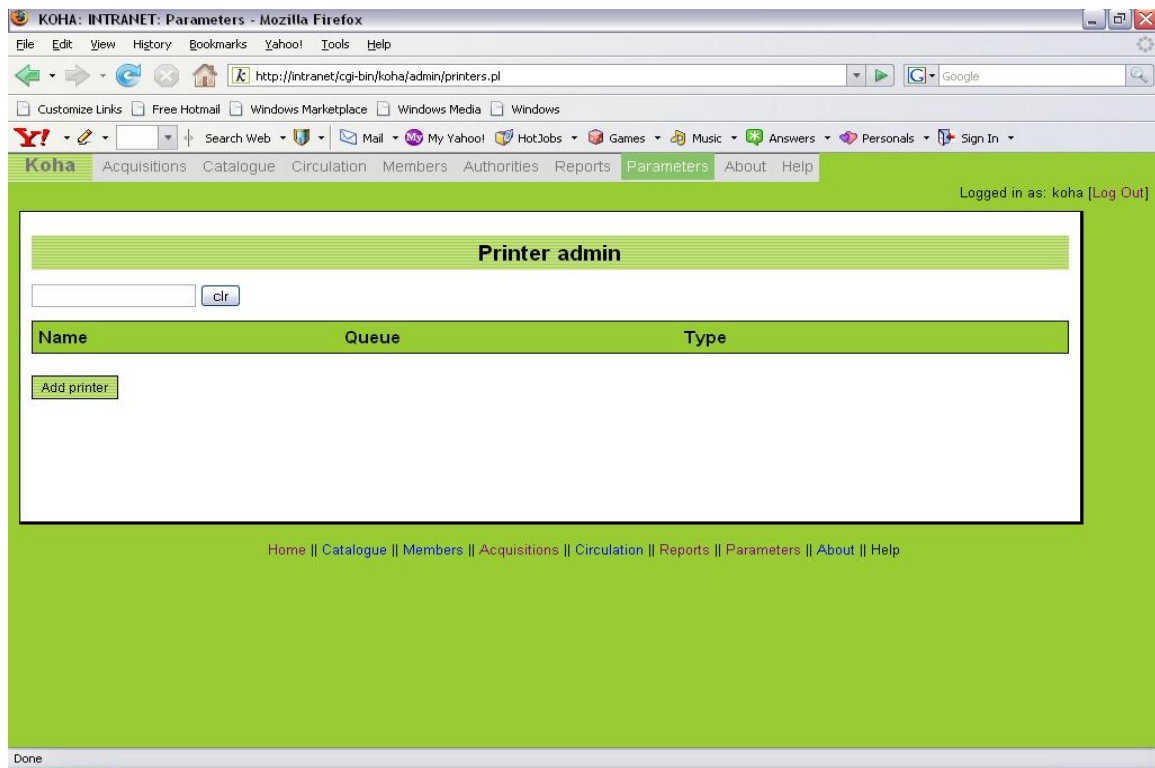


Figure 3.1.2.2 Printer screen (add printer)

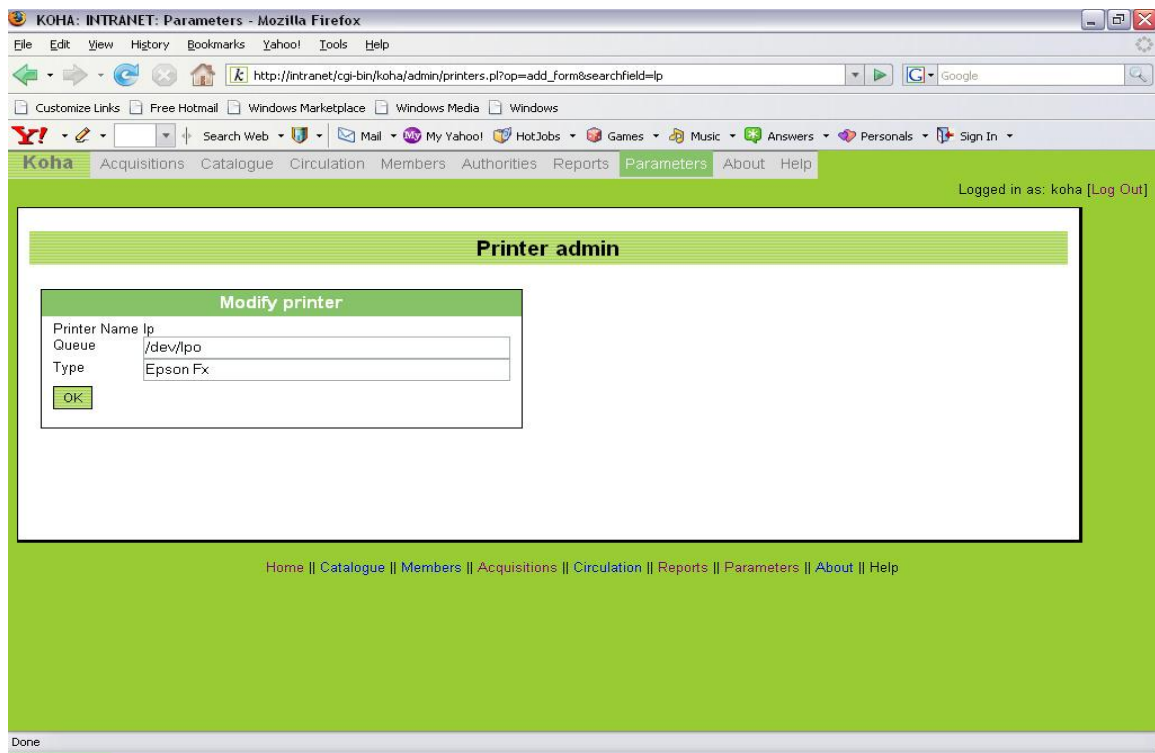
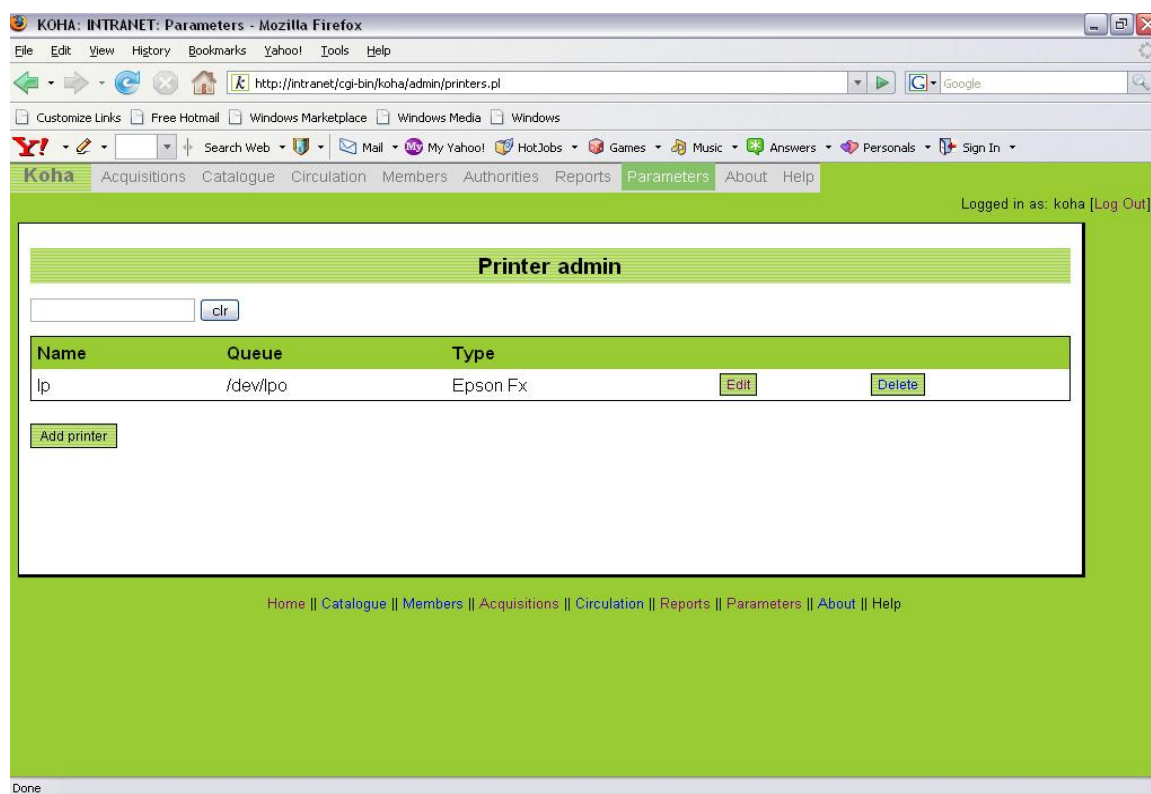


Figure 3.1.2.2 Printer screen (after add printer)



3.1.2.3 Item types:

Item types are the categories of your library items. Defining item types must be done before using KOHA for your library, and it's relate to issuing rules, statistics, OPAC searches, and many other KOHA functions will be based on these preference. You can define as many item types, as you want

Figure: 3.1.2.3 Item types screen (initial)

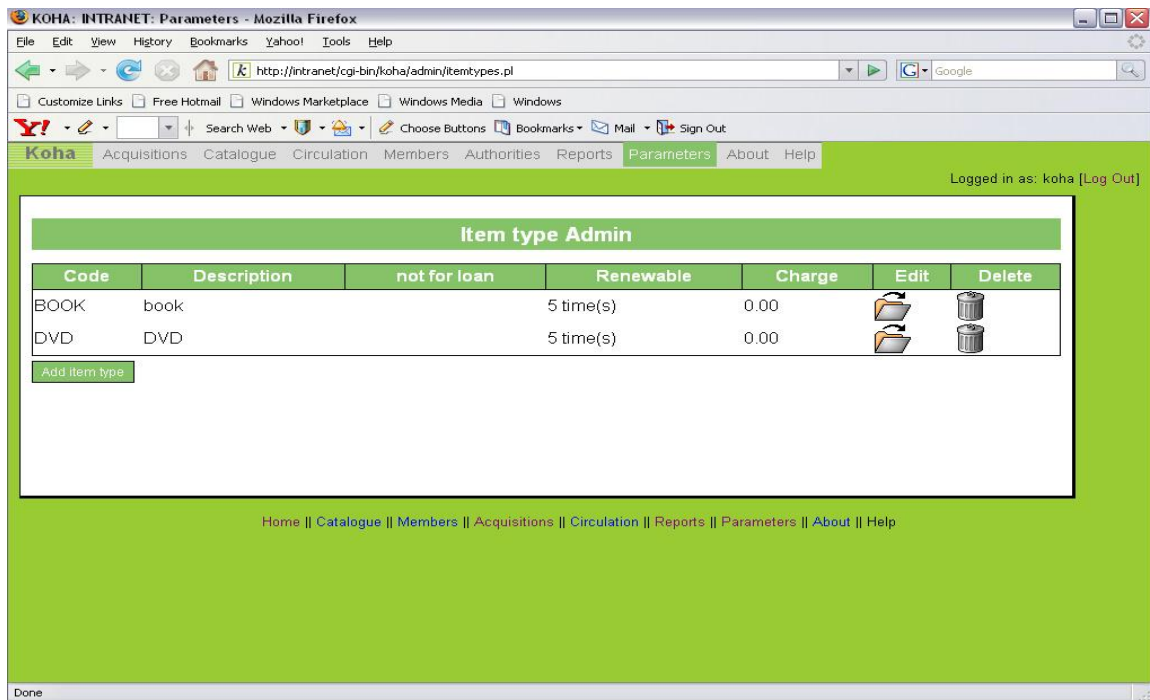
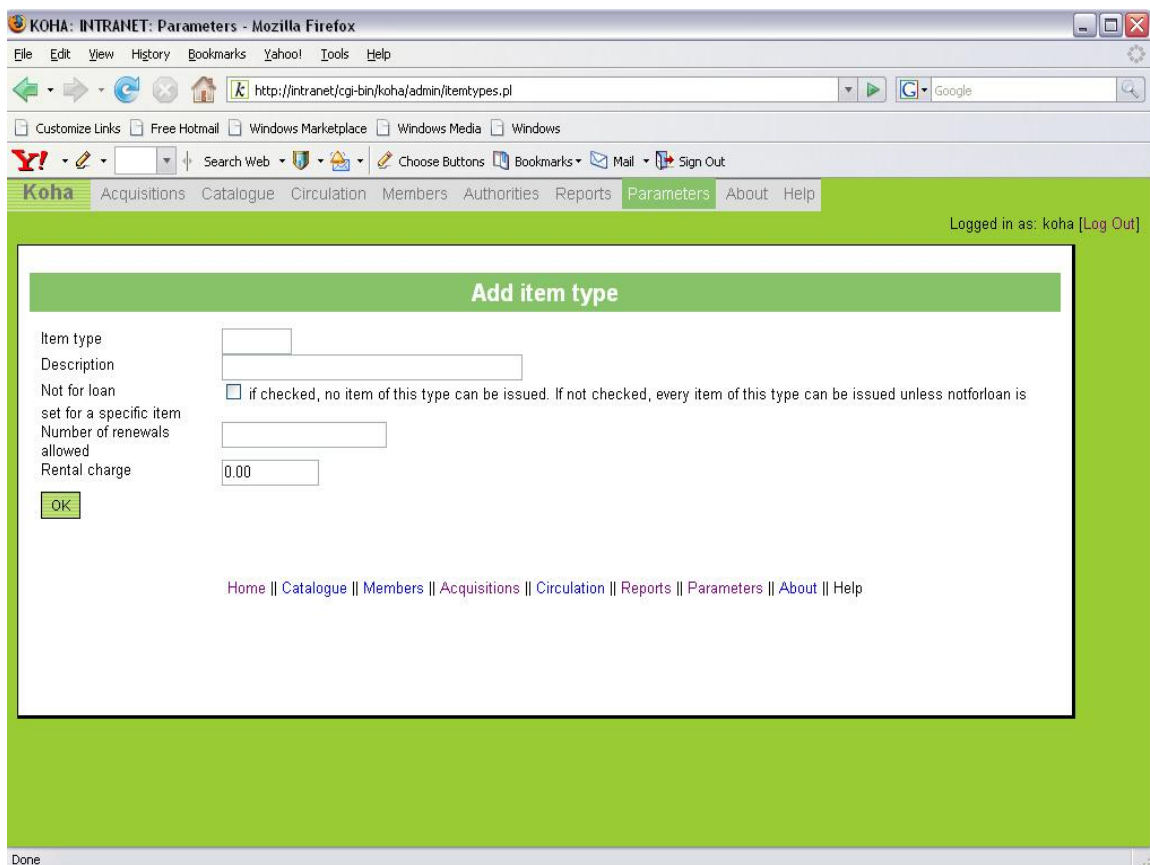


Figure: 3.1.2.3 Item type screen (when add item type)



When you add item in your KOHA system you should fill up those fields. After adding all information click ok button. The itemtype code is limited to four characters. Number of renewals specifies how many times a borrower of items of this type may renew the loan. Not for loan would be checked for item types such as reference materials, which do not leave the library.

If you want to edit information there is edit button to edit information. Setting up item types is one of the first things if you want to use the KOHA software for your library.

Figure 3.1.2.3 Modify Item types screen (adding data)

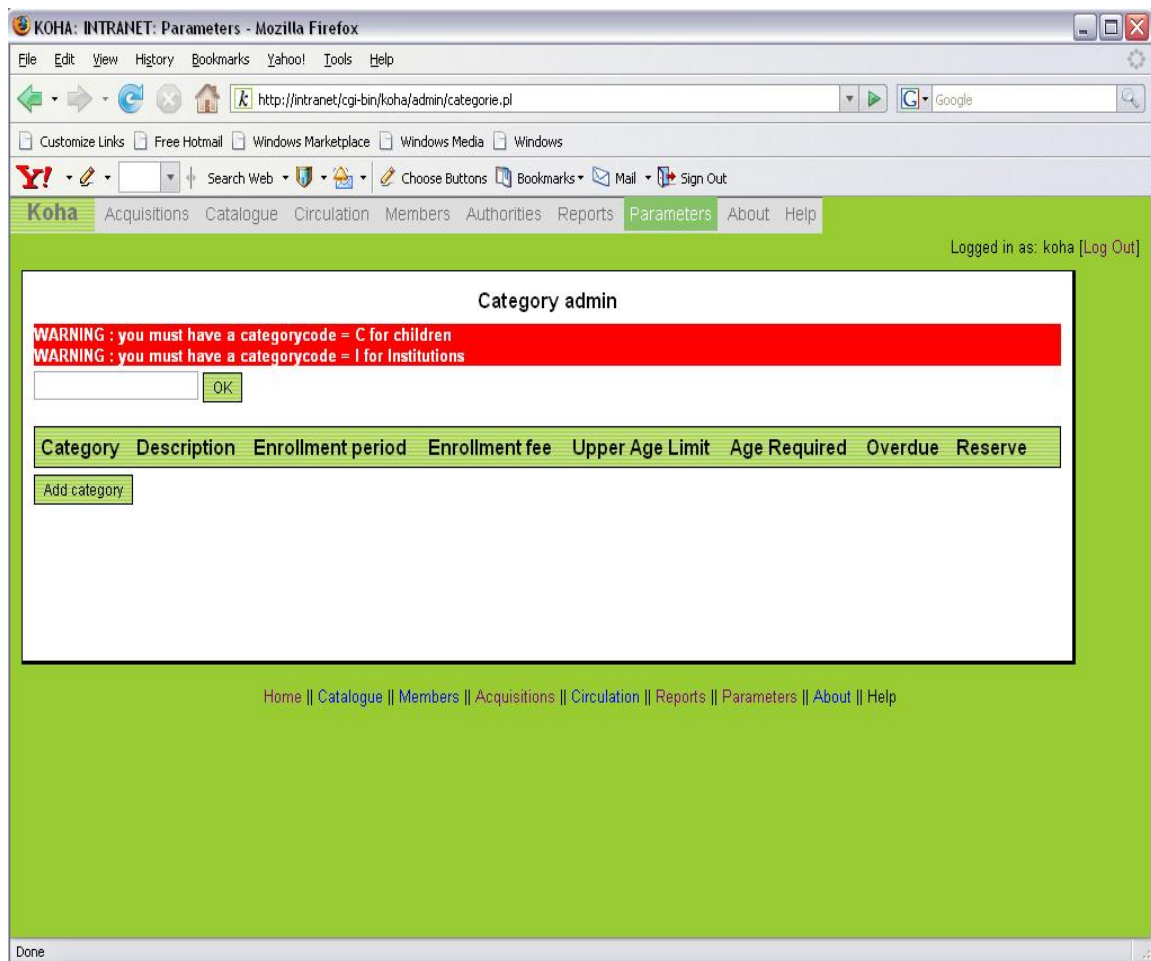
The screenshot shows a web browser window titled "KOHA: INTRANET: Parameters - Mozilla Firefox". The address bar displays the URL "http://intranet/cgi-bin/koha/admin/itemtypes.pl?op=add_form&itemtype=FIC". The browser's toolbar includes various icons and a search bar. Below the browser window, the KOHA interface is visible, featuring a green header with navigation links: "Koha", "Acquisitions", "Catalogue", "Circulation", "Members", "Authorities", "Reports", "Parameters", "About", and "Help". The "Parameters" link is highlighted. In the top right corner, it says "Logged in as: koha [Log Out]". The main content area is titled "Modify item type" and contains the following form fields:

Item type	FIC
Description	Fiction book
Not for loan for a specific item	<input type="checkbox"/> if checked, no item of this type can be issued. If not checked, every item of this type can be issued unless notforloan is set
Number of renewals allowed	2
Rental charge	0.00

Below the form fields is an "OK" button. At the bottom of the page, there is a navigation bar with links: "Home || Catalogue || Members || Acquisitions || Circulation || Reports || Parameters || About || Help".

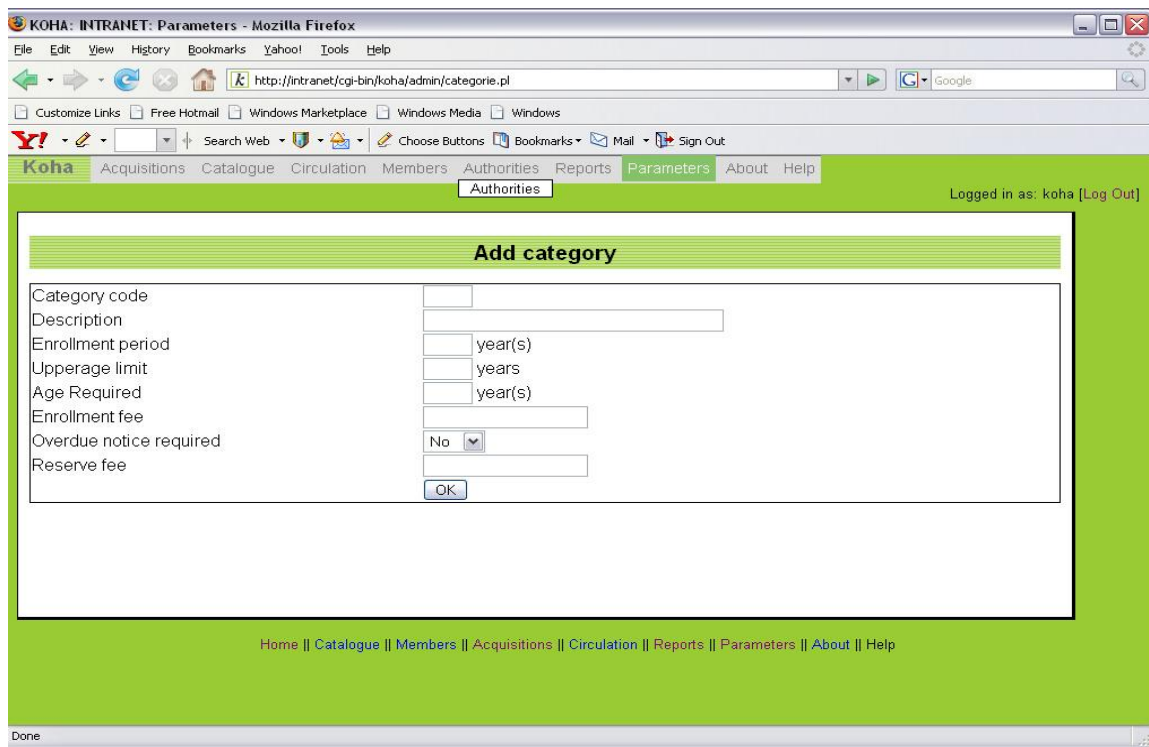
3.1.2.4 Borrower Categories

Figure: 3.1.2.4 Category admin screen (initial)



To add information's click Add categories button.

Figure: 3.1.2.4 Add category screen (initial)



For example:

Category code: C

Description: Children

Enrolment period: 3

Upperage period: 18

Age required: 5

Reserve fee: 10

Then click ok button to see those information in Category admin screen.

3.1.2.5 Issuing Rules

Issuing rules deals with 2 topics:

1. Issuing length and quantity: they say how many items and how long a borrower category can issue for an itemtype

2. Overdue charges: they are based on the item type and borrower type. These charges are defined on this page.

NOTE:

Itemtypes and borrower categories must be defined before issuing rules are defined. Your defined items types and borrower categories are then displayed in a grid on this page.

Figure: 3.1.2.5 Defining issuing rule for screen (initial)

KOHA: INTRANET: Parameters - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

http://intranet/cgi-bin/koha/admin/issuingrules.pl

Customize Links Free Hotmail Windows Marketplace Windows Media Windows

Search Web Choose Buttons Bookmarks Mail Sign Out

Koha Acquisitions Catalogue Circulation Members Authorities Reports Parameters About Help

Note: fines are calculated by the fines2.pl script, located in misc directory.
Ask your administrator to put this script in crontab, after midnight, to have fines calculated every night

Default values

If a cell is not filled, the 1st of the following value is searched :

- same branch and same borrower category, itemtype *
- same branch and same itemtype, borrower category *
- same itemtype and borrower category, branch *
- everywhere
- If nothing is set, default is 21,5 (hardcoded)

Select a branch : Default

	Issue / fine	
book		
DVD		
*		

Save

Done

Issuing length and quantity

Each box in the grid contains 2 numbers, separated by commas, defining how many days a given borrower type can issue how many material. For example: 21,5 means the borrower can issue up to 5 books for up to 21 days

The * have a specific meaning. They mean "any". If you set 21,5 for itemtype=*, borrower category = student, branch = main, then a student can't issue more than 5 items of ANY item type. This 'any' box is cumulative with other boxes. It means that 21,5 as itemtype = book, 14,2 as itemtype = CD and 30,6 as itemtype = * with category = student means a student can issue up to 5 books, up to 2 CD but a maximum of 6 items (books or CD). In this case the 30 days in itemtype=* is discarded and the issuing length is calculated on the exact itemtype

Overdue charges

Each box in the grid contains three numbers separated by commas, defining the fine, how many days overdue the item must be before the fine is assessed and a first notice prepared and how many days after that the fine is assessed again and a second notice sent. For example, if you charge adults 1 dollar (or euro, or whatever currency) for overdue videos after three days and add another dollar charge after another five days, put '1,3,5' in the box in the grid that aligns with Adult and Video. If you charge adults 25 cents for overdue fiction books after a grace period of seven days and repeat the charge seven days later, then the entry in the corresponding box in the grid would be '.25,7,7'. After the first and second notice are given, KKOHA prepares a "final notice" after the number of days set by the final number in the grid and sets the charge to the maximum, which is 5.

Note:

The fines2.pl script located in misc directory calculates Fines. Ask your system administrator to put this script in crontab, after midnight; to have fines calculated every night.

Figure: 3.1.2.5 Defining issuing rule for screen (after adding data)

KOHA: INTRANET: Parameters - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

http://intranet/cgi-bin/koha/admin/issuingrules.pl

Customize Links Free Hotmail Windows Marketplace Windows Media Windows

Search Web Choose Buttons Bookmarks Mail Sign Out

Koha Acquisitions Catalogue Circulation Members Authorities Reports **Parameters** About Help

HINT for fines

Each box needs to be filled in with fine,time to start charging,charging cycle
eg 1,7,7 = 1USD,EUR,etc fine, after 7 days, every 7 days
Note : fines are calculated by the fines2.pl script, located in misc directory.
Ask your administrator to put this script in crontab, after midnight, to have fines calculated every night

Default values

If a cell is not filled, the 1st of the following value is searched :

- same branch and same borrower category, itemtype *
- same branch and same itemtype, borrower category *
- same itemtype and borrower category, branch *
- everywhere
- If nothing is set, default is 21,5 (hardcoded)

Select a branch : Default

	Children Issue / fine	Institution Issue / fine	* Issue / fine
book	<input type="text"/> / <input type="text"/>	28,5 / <input type="text"/>	21,5 / <input type="text"/>
DVD	<input type="text"/> / <input type="text"/>	24,5 / <input type="text"/>	21,5 / <input type="text"/>
Fiction book	<input type="text"/> / <input type="text"/>	25,5 / <input type="text"/>	21,5 / <input type="text"/>
Reference materials	<input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/>
Vedio Recording	<input type="text"/> / <input type="text"/>	1,0 / <input type="text"/>	7,5 / 2.000000,0
*	<input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/>	<input type="text"/> / <input type="text"/>

Save

Done

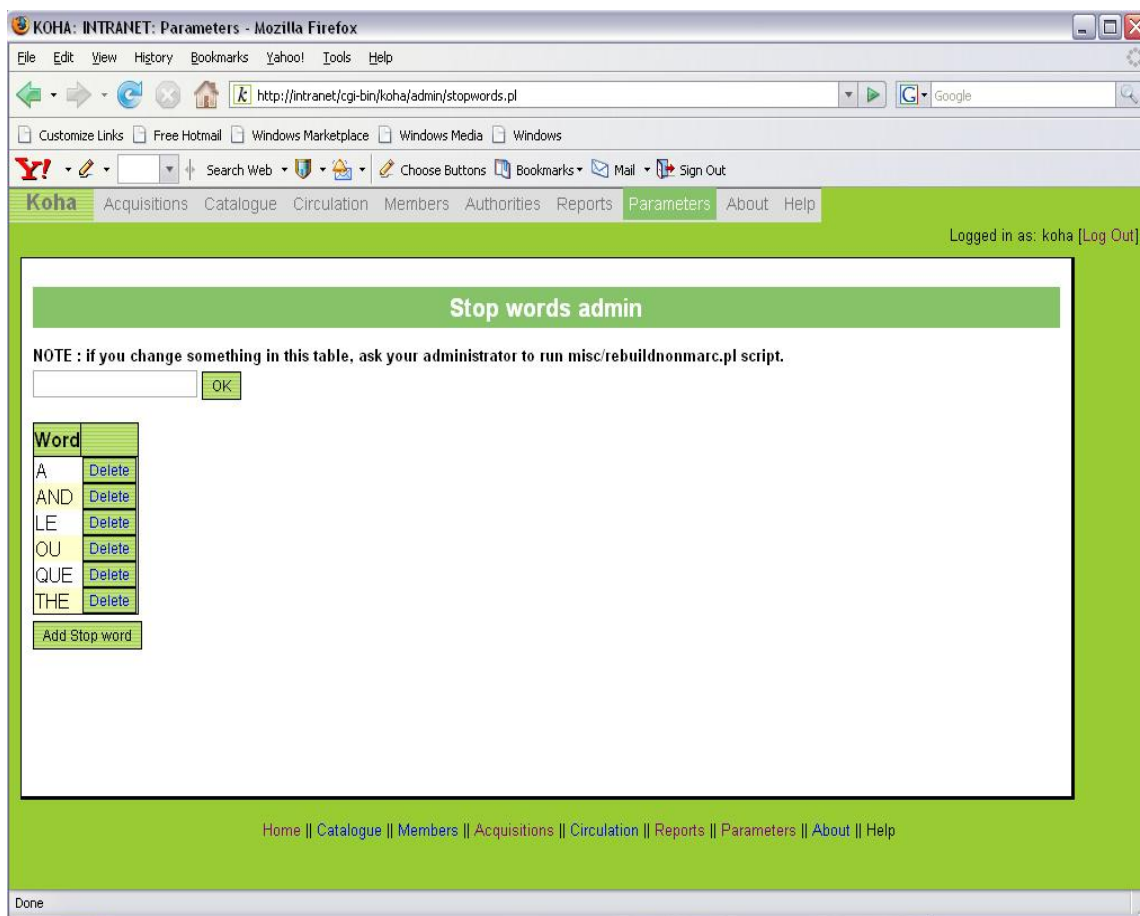
3.1.2.6 Stop Words

Here you should list all of the words you wish KOHA to ignore when performing catalogue searches or building the keyword index. Normally, you will not want KOHA to save keyword references to articles like 'The' 'or', 'A', 'An' and other very common words.

NOTE:

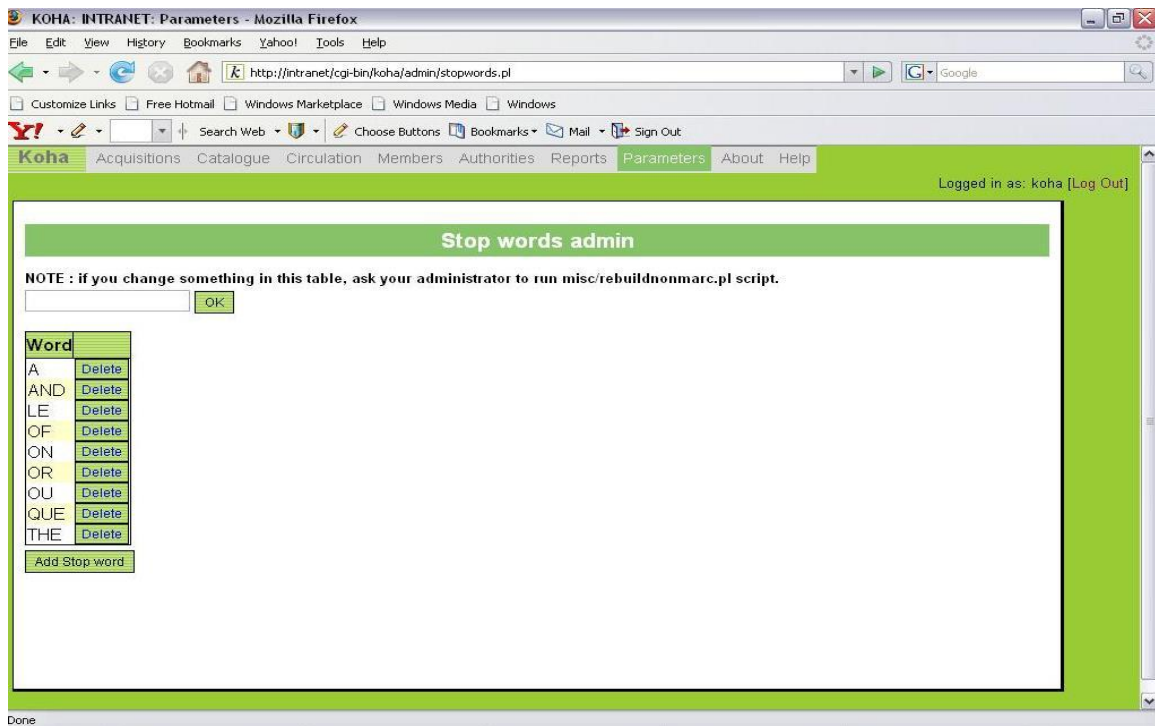
You must define at least one stop word, or KOHA searches will crash.

Figure: 3.1.2.6 Stop words screen (initial)



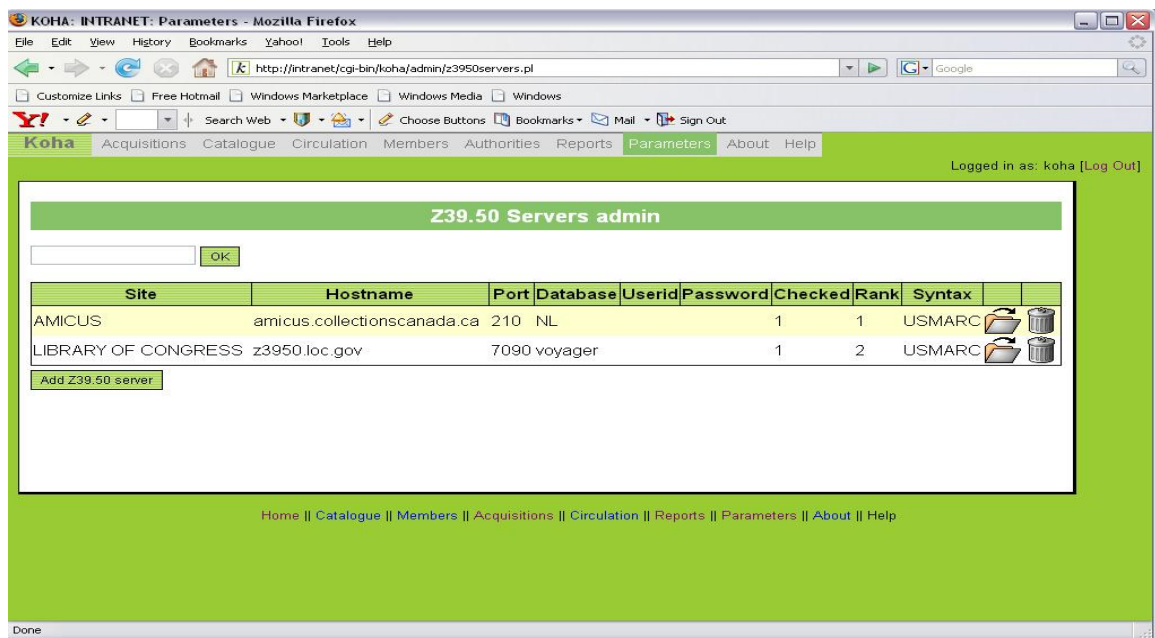
To add new stop word click Add Stop word button. After adding the stop word click ok button.

Figure: 3.1.2.6 Stop words screen (after adding data)



3.1.2.7 Z39.50 Servers

Figure: 3.1.2.7 Z39.50 Server admin screen (initial)

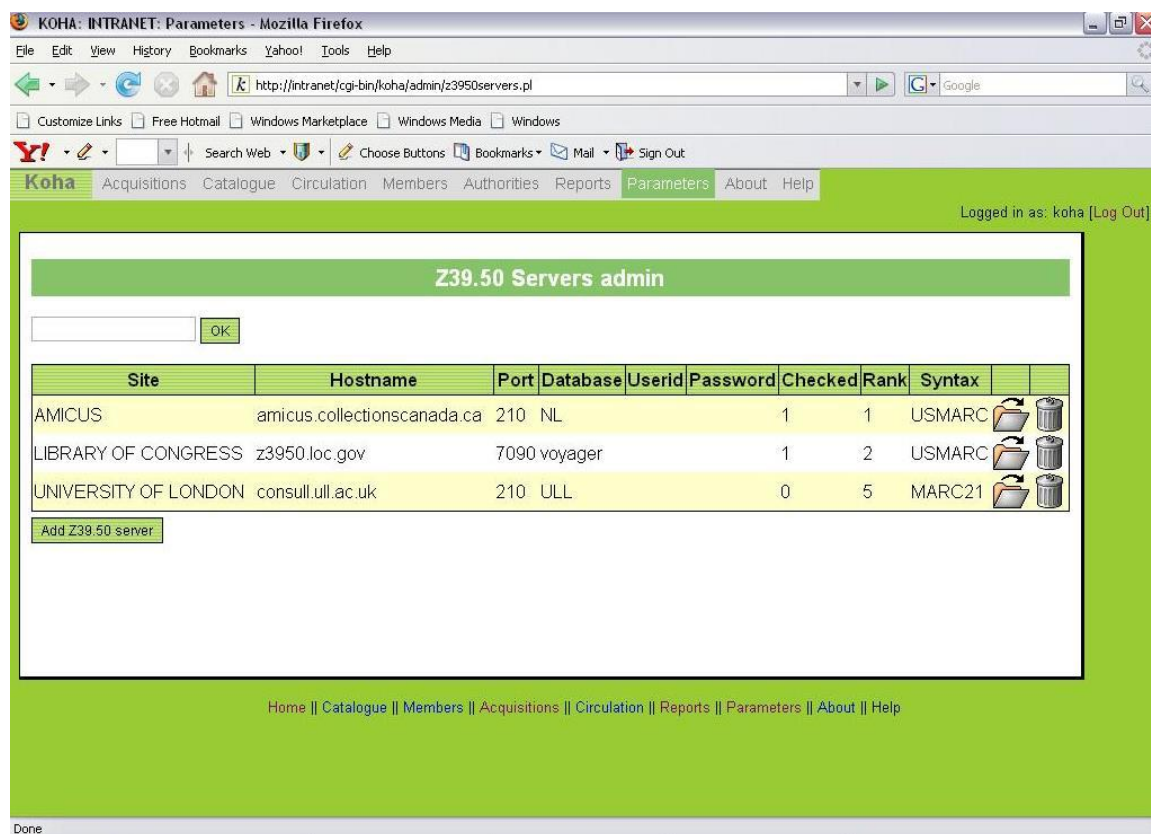


This preference searching other libraries MARC records, this parameter defines the Z39.50 servers for search other library MARC records. The other fields on the form control whether or not the server is automatically searched when you request a Z39.50 search put a 1 in the Checked field and the order in which it is checked. It is a good idea to be selective in choosing servers. But the most important part is added correct Hostname port number and the name of database.

NOTE:

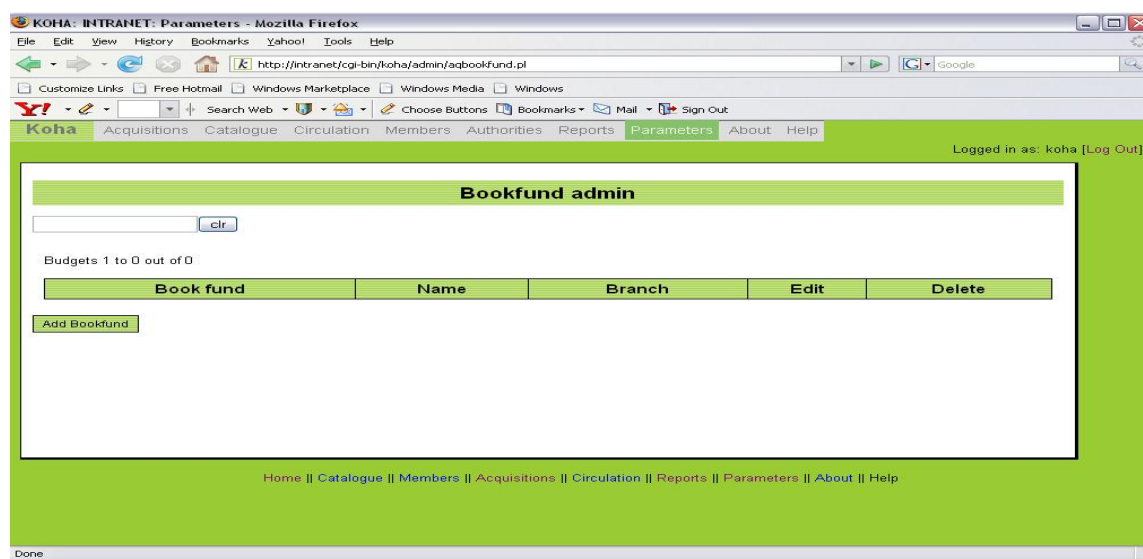
Defining more than five or six checked servers may slow down your Z39.50 search results. In KOHA version 2.x.x, the Z39.50 client will not work if KOHA is installed on Windows or Mac OS X. This should change with the release of version 3.0.0.

Figure: 3.1.2.7 Z39.50 Server admin screen (initial)



3.1.2.8 Book Funds

Figure: 3.1.2.8 Bookfund admin screen (initial)



Book Funds are accounts that you establish to keep track of your expenditures for library materials. They may be used for any kind of materials and should match the line items in your materials budget. For example if your library added a budget line for books, a second line for magazines then you would have two Book Funds.

The process of setting up the funds involves two steps: naming the funds, and setting the budget.

NOTE:

If you have set your acquisitions system preference to normal, you now need to give KOHA some information about your materials acquisition budget. If you chose simple acquisitions, ignore this parameter.

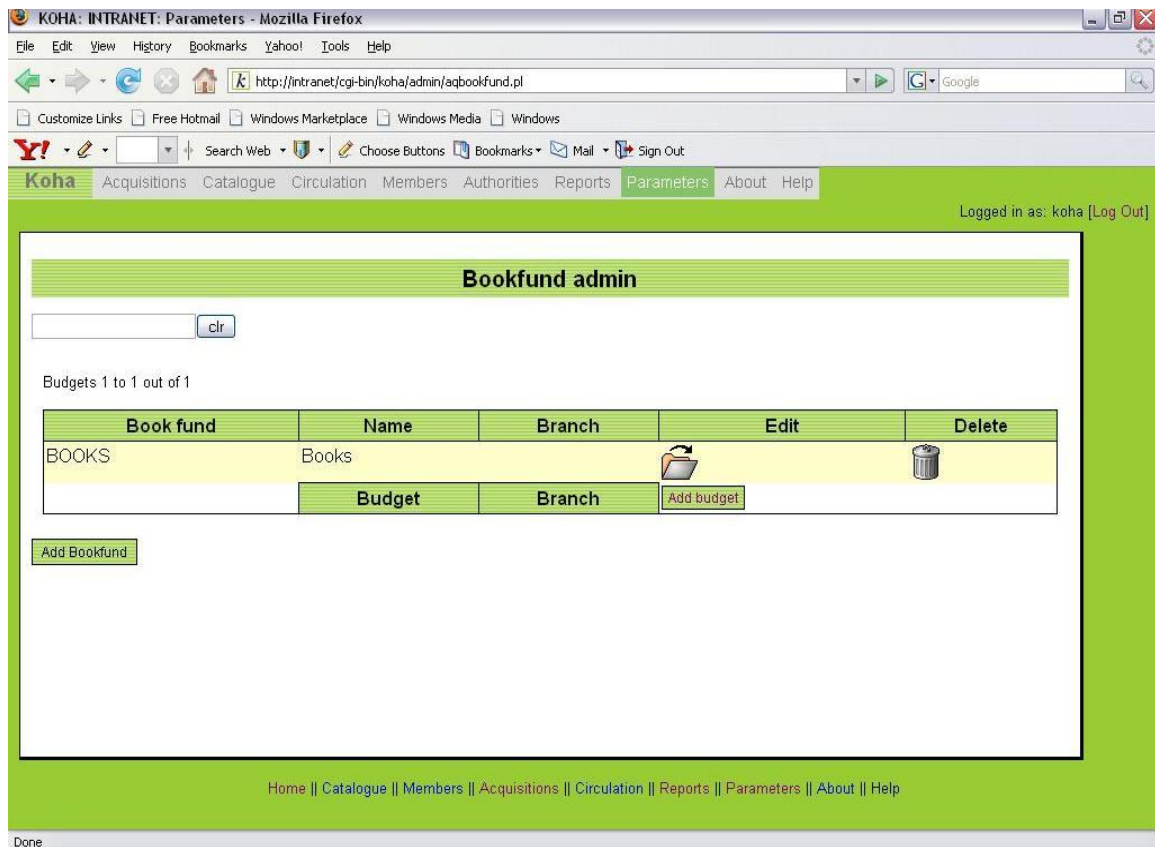
To add Book fund click Add Bookfund button.

Figure: 3.1.2.8 Add book fund screen

The screenshot shows a Mozilla Firefox browser window titled "KOHA: INTRANET: Parameters". The address bar displays "http://intranet/cgi-bin/koha/admin/aqbookfund.pl". The browser's menu bar includes File, Edit, View, History, Bookmarks, Yahoo!, Tools, and Help. The toolbar contains various icons for navigation and search. Below the browser window, the KOHA interface is visible, featuring a green header with the KOHA logo and navigation links: Acquisitions, Catalogue, Circulation, Members, Authorities, Reports, Parameters (highlighted), About, and Help. A "Logged in as: koha [Log Out]" link is present in the top right corner. The main content area is titled "Add book fund" and contains a form with the following fields: "Book fund" (a text input field), "Name" (a text input field), and "Branch" (a dropdown menu). Below these fields, a note states: "Select one if budget is branch specific, otherwise, leave it blank." An "OK" button is located at the bottom of the form. At the bottom of the page, a navigation bar includes links: Home || Catalogue || Members || Acquisitions || Circulation || Reports || Parameters || About || Help. The status bar at the very bottom shows "Done".

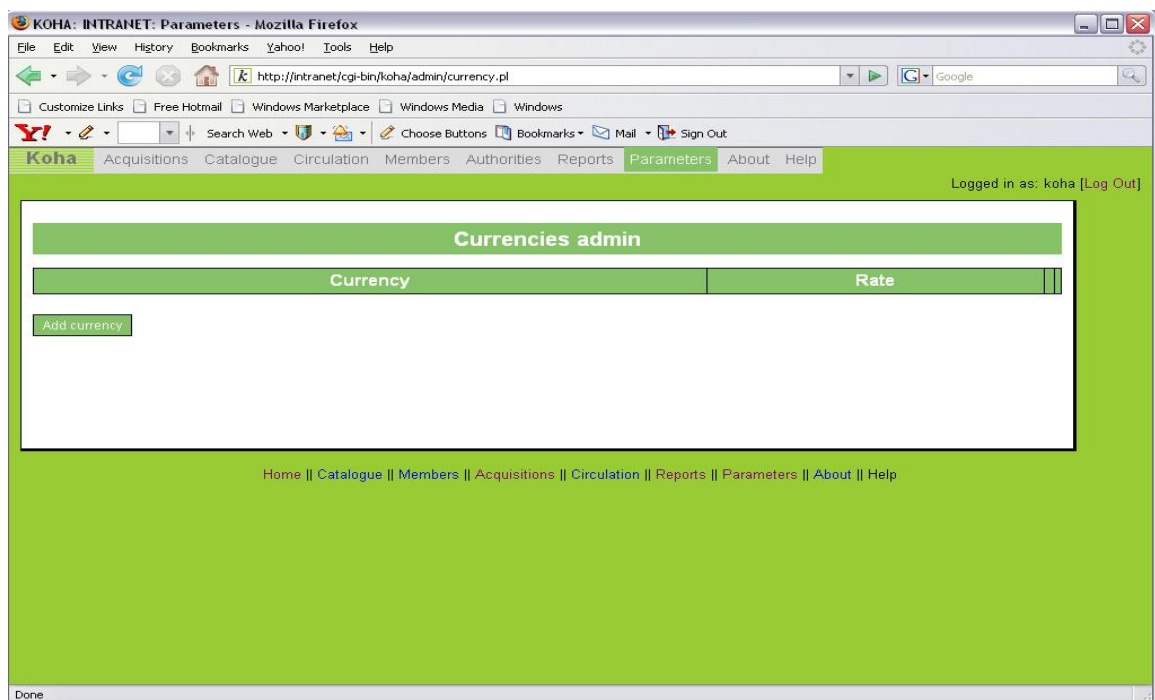
After adding book fund you can also add budget by Add budget button. When you add budget be careful about your data format.

Figure: 3.1.2.8 Bookfund admin screen (after adding data)



3.1.2.9 Currencies

Figure: 3.1.2.9 Currencies admin screen (initial)



You should at least define your local currency here, giving it a name like US DOLLAR or EURO and setting the rate. If you do business with different vendors who charge in a different currency, enter a name for that currency like PESO and set the approximate exchange rate compared to your currency. To add Currencies click Add currency button.

Figure: 3.1.2.9 Add currency screen

The screenshot shows a web browser window titled "KOHA: INTRANET: Parameters - Mozilla Firefox". The address bar displays "http://intranet/cgi-bin/koha/admin/currency.pl". The browser's toolbar includes buttons for File, Edit, View, History, Bookmarks, Yahoo!, Tools, and Help. Below the toolbar, there are links for Customizing Links, Free Hotmail, Windows Marketplace, Windows Media, and Windows. The main content area has a green header with the "Add currency" title. Below the header, there are two input fields: "Currency" and "Rate". An "Ok" button is located below the "Rate" field. The page footer contains a navigation bar with links: Home || Catalogue || Members || Acquisitions || Circulation || Reports || Parameters || About || Help. The status bar at the bottom indicates "Done".

For example:

Currency: EURO

Rate: 1.25000

Then press ok button to see information in Currencies admin screen.

3.1.3 Setting Bibliographic data parameters

3.1.3.1 Biblio framework (MARC structure)

3.1.3.2 Authorized value:

3.1.3.3 Biblio Framework (MARC Structure) – subfields

3.1.3.4 KOHA to MARC Database Links

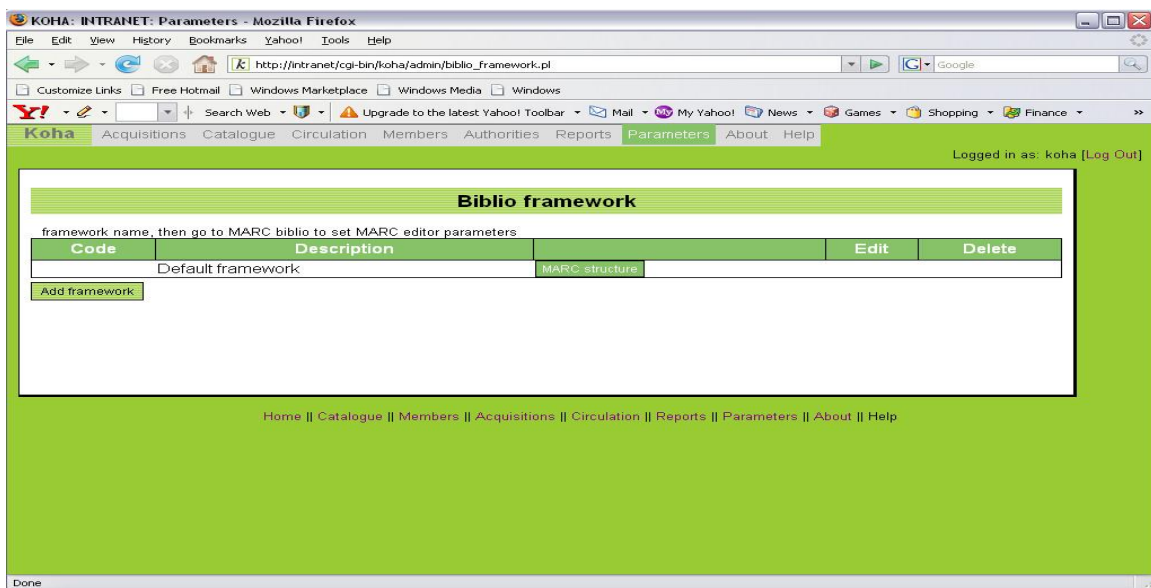
3.1.3.5 MARC Check

3.1.3.6 Thesaurus Structure

3.1.3.1 Biblio framework (MARC structure):

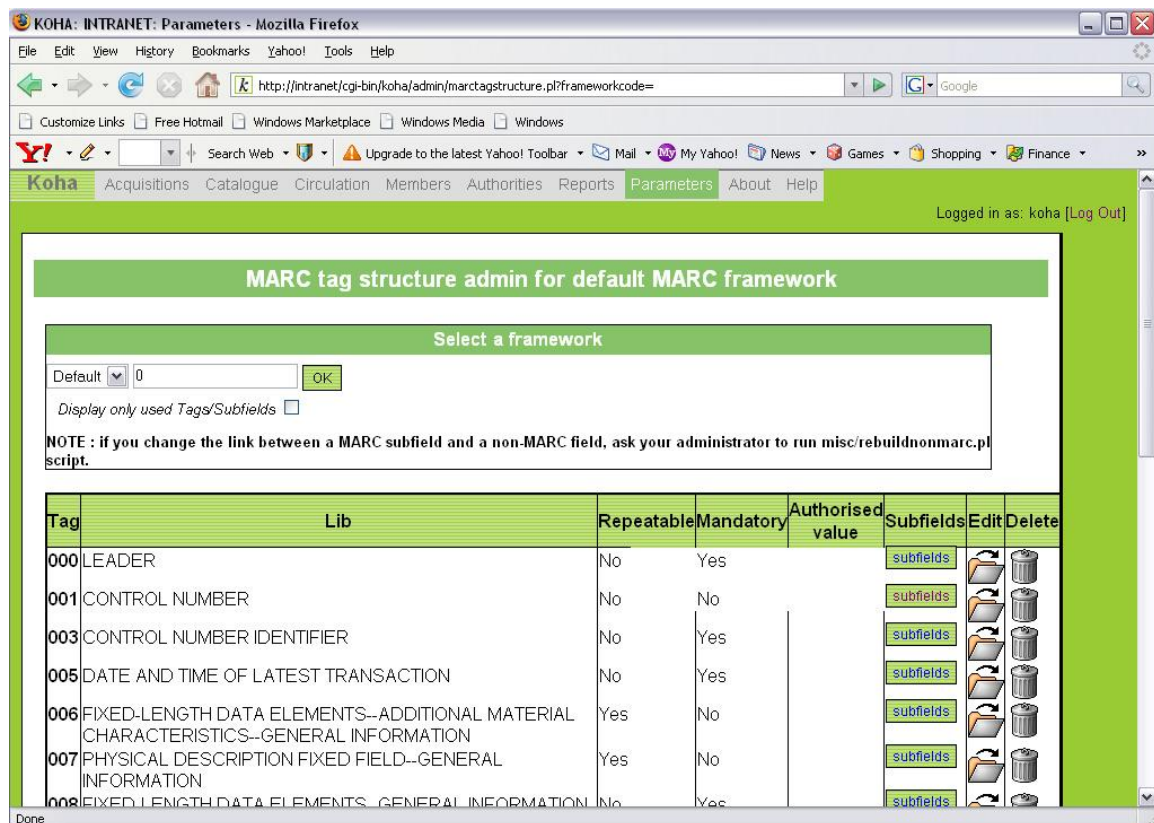
Biblio frameworks are used to catalogue biblios. Once a framework type is created, you can click on "MARC structure" to define the exact MARC structure. The first time, KOHA will ask you to select an existing framework to copy into the new one. Thus, you don't have to define all the MARC structure. Here you can add MARC or you can delete MARC but if you developer of KOHA than you can delete MARC from here otherwise it would be problem.

Figure 3.1.3.1: Biblio framework (first time)



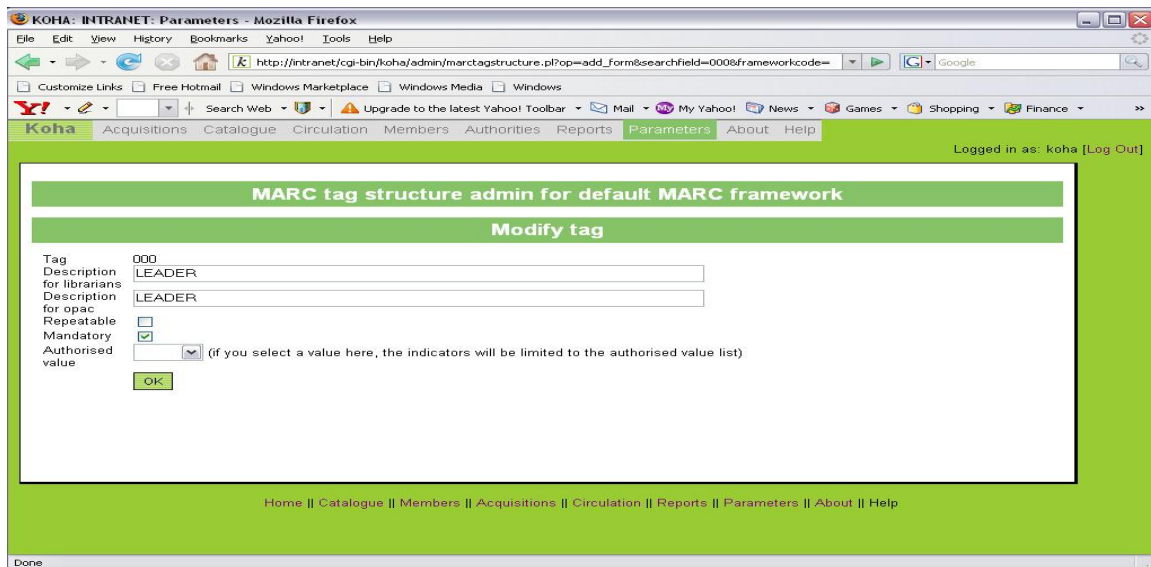
Here you can add framework by Add framework button. If you click on MARC structure button you can see all default MARC filed which are build in KOHA.

Figure 3.1.3.1.2: MARC tag structure admin for default MARC framework



Here you can edit MARC tag, MARC subfields by Edit and subfields button.

Figure 3.1.3.1.3: MARC tag structure admin for default MARC framework-Modify Tag



3.1.3.2 Authorized value:

KOHA allows you to restrict the values that catalogers can place in some MARC subfields to certain pre-defined "authorised" values. These authorised values are defined here.

For example, if your used KOHA for several libraries, and you use MARC21, you might want to restrict the 850a MARC subfield to the institution codes for just those libraries. In that case, you could define a new authorised values category (perhaps called "INST") and enter the institution codes as the authorised values for that category. Once the 850a subfield is linked to the INST authorised values category in your MARC tag structure, catalogers must choose a value from the list you define here, and may not type in any other value.

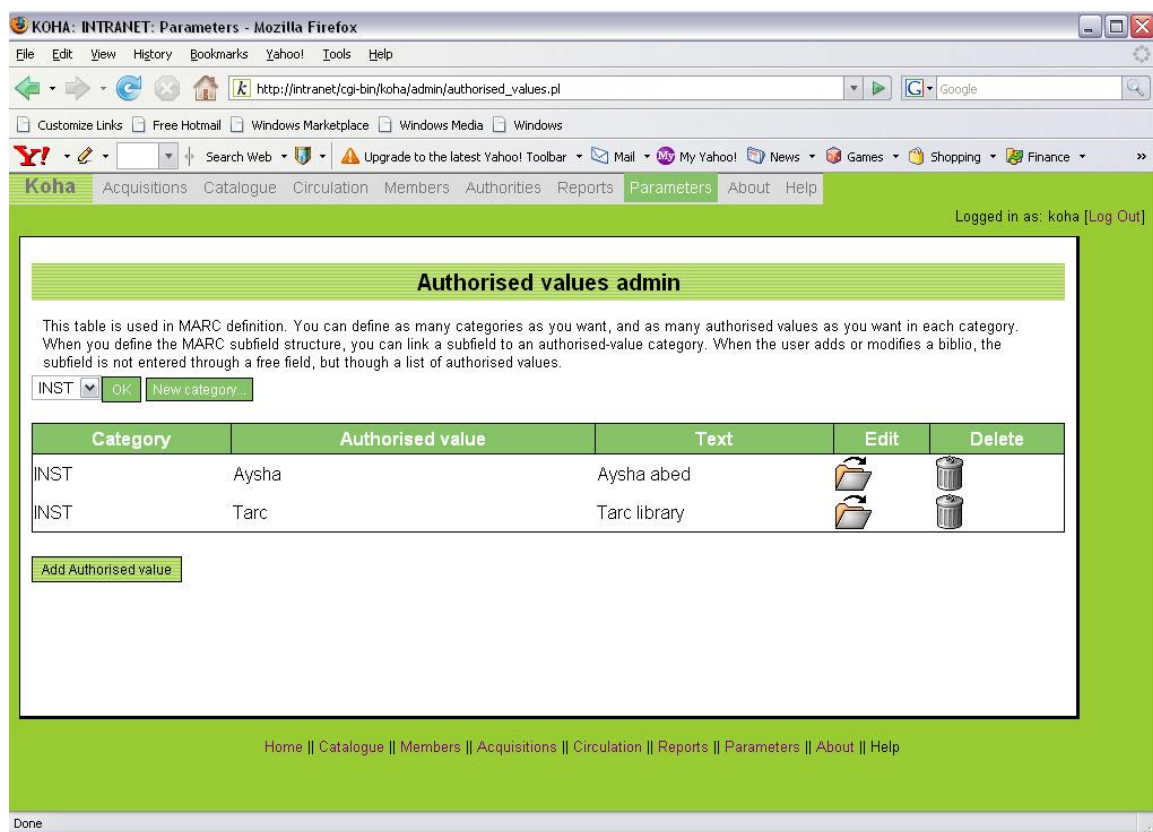
- If a subfield is non-mandatory, KOHA automatically adds an empty value to the authorised value list, which is selected by default. If the subfield is mandatory, no empty value is added (and you should NOT add it in the list, as it's an illegal value!)
- In the MARC editor, the list is ordered by Text, NOT by value. So you can define a default value by putting a space before the value you want to see first. For example, if your list is related to language, you can set "ENG" as

authorised value and " English" as text. The space will order "ENG" as first default value, and the space won't be shown (because HTML automatically discard useless spaces).

- You can put a value 1st with N spaces, then another one 2nd with N-1 space,..., a value in Nth position with 1 space. Don't abuse of this feature, it's easier to find a value in an alphabetical order. It should be used only to have a default value

KOHA automatically sets up authorised value categories for your item types and branch codes, and you can link these authorised values to MARC subfields when you set up your MARC tag structure.

Figure 3.1.3.2 Authorised values admin



3.1.3.3 Biblio Framework (MARC Structure) – subfields

KOHA allows you to specify which MARC tags you want to use and which you want to ignore. When you downloaded and installed KOHA, you also got the entire list of MARC21 tags and subfields in current use. Now you need to use the administration page to edit this list and tell KOHA, which tags you, want to use and how you want to use them. If you decide that you will never use a MARC tag, then you can delete it, but since this will not result in any appreciable improvement in performance, it is probably better to leave it. There will be tags you want to add, however. If you are using older MARC tags that are not in the list of tags supplied with KOHA, then use the MARC tag structure administration page to add them. Similarly, you will probably need to add the holdings tag you currently use, or at least check the subfield structure of the 852 tag if you use it for holdings.

Editing the SubFields from the MARC tag structure page is very time-consuming, but also very important; be sure to click the subfield link for each tag in your MARC tag structure.

For each subfield you can set:

- Repeatable: whether it can be repeated or not. If it can be repeated, separate the values by a | in the MARC editor when you want to have the subfield twice
- Mandatory: whether the field is mandatory or not. If mandatory, the cataloger can't validate the biblio if the subfield is empty.
- Search also: a list of field that KOHA will also search on when the user do a search on the subfield
- KOHA link: Very important. KOHA is multi-MARC compliant. So, it does not know what the 245\$a means, neither what 200\$f (those 2 fields being both the title in MARC21 and UNIMARC!). So, in this list you can "map" a MARC subfield to it's meaning. KOHA constantly maintains consistency between a subfield and it's meaning. When the user wants to search on

"title", this link is used to find what is searched (245 if you're MARC21, 200 if you're UNIMARC).

- Text for librarian: what appears before the subfield in the librarian interface
- Text for OPAC: what appears before the field in the OPAC. If empty, the text for librarian is used instead
- Managed in tab: deals with the tab where the subfield is shown. Ignore means that the subfield is not managed. All subfields of a given field must be in the same tab or ignored: 1st it's more logic, 2nd, KOHA would be confused to repeat repeatable fields otherwise!!!
- Hidden: allow you to select from 19 possible visibility conditions, 17 of which are implemented. They are the following:

(! Means 'not visible' or in the case of Collapsed 'not Collapsed')

-9 => Future use

-8 => Flag

-7 => OPAC !Intranet !Editor Collapsed

-6 => OPAC Intranet !Editor !Collapsed

-5 => OPAC Intranet !Editor Collapsed

-4 => OPAC !Intranet !Editor !Collapsed

-3 => OPAC !Intranet Editor Collapsed

-2 => OPAC !Intranet Editor !Collapsed

-1 => OPAC Intranet Editor Collapsed

0 => OPAC Intranet Editor !Collapsed

1 => !OPAC Intranet Editor Collapsed

2 => !OPAC !Intranet Editor !Collapsed

3 => !OPAC !Intranet Editor Collapsed

4 => !OPAC Intranet Editor !Collapsed

5 => !OPAC !Intranet !Editor Collapsed

6 => !OPAC Intranet !Editor !Collapsed

7 => !OPAC Intranet !Editor Collapsed

8 => !OPAC !Intranet !Editor !Collapsed

9 => Future use

- URL: if checked, the subfield is an URL, and can be clicked
- Auth value: means the value is not free, but in the authorised value list of the selected type
- Thesaurus: means that the value is not free, but can be searched in authority/thesaurus of the selected category
- Plugin: means the value is calculated or managed by a plugin. Plugins can do almost anything. For example, in UNIMARC there are plugins for every 1xx fields that are coded fields. The plugin is a huge help for cataloger! There are also two plugins (unimarc_plugin_210c and unimarc_plugin_225a that can "magically" find the editor from an ISBN, and the collection list for the editor)
- Link: If you enter a field/subfield here (200b), a little glass appears after the subfield. If the user clicks on the glass, a search is done on the DB for the field/subfield with the same value. Can be used for 2 main topic:
 - on a field like author (200f in UNIMARC), put 200f here, you will be able to see all biblios with the same author
 - on a field that is a link (4xx) to reach another biblio. For example, put 011a in 464\$x, will find the serial that was previously with this ISSN. With the 4xx plugin, you get a powerful tool to manage biblios connected to biblios

Figure 3.1.3.3 Edit MARC subfields constraints for framework default

The screenshot shows a web browser window titled 'KOHA: INTRANET: Parameters - Mozilla Firefox'. The address bar shows the URL: http://intranet/cgi-bin/koha/admin/marc_subfields_structure.pl?op=add_form&tagfield=100&frameworkc. The browser's toolbar includes various search engines and utility links. The KOHA navigation menu at the top includes: Koha, Acquisitions, Catalogue, Circulation, Members, Authorities, Reports, Parameters (selected), About, and Help. A status bar indicates 'Logged in as: koha [Log Out]'. The main content area is titled 'Edit MARC subfields constraints for framework default'. It contains two sections: 'Tag 100, Subfield 4' and 'Tag 100, Subfield 6'. Each section has 'MARC constraints' and 'Editor constraints'. For Tag 100, Subfield 4, the 'MARC constraints' section has 'repeatable' checked and 'mandatory' unchecked. The 'Editor constraints' section has 'Description for librarian' set to '1', 'In tab' set to '0', 'hidden' unchecked, 'Auth value' set to 'URL', and 'Link to field' set to '200c'. For Tag 100, Subfield 6, the 'MARC constraints' section has 'repeatable' unchecked and 'mandatory' unchecked. The 'Editor constraints' section is partially visible.

Any type of biblio if we want to add in KOHA we have to add the following information. The following fields are mandatory to add any type of biblio in KOHA system.

000 – LEADER

Description:

This field contains data, number of bibliographic record. In this field there is no subfiled.

001 – CONTROL NUMBER

Description:

The MARC code identifying whose system control number is present in field 001 is contained in field 003 (Control Number Identifier). An organization receiving a record may move the incoming control number from field 001 to field 035 - System Control Number, 010 - Library of Congress Control Number, 016 - National Bibliographic Agency Control Number, as appropriate, and place its own system control number in field 001.

005- DATE AND TIME OF LATEST TRANSACTION

Description:

The date and time of the latest record transaction and serve as a version identifier for the record indicate by sixteen characters. They are recorded according to Representation of Dates and Times (ISO 8601). The date requires 8 numeric characters in the pattern **yyyymmdd**. Date characters **yyyymmdd** include 4 for the year, 2 for the month, and 2 for the day. The Date entered on file never changes

The time requires 8 numeric characters in the pattern **hhmmss.f**, expressed in terms of the 24-hour (00-23) clock. Time characters **hhmmss.f** include 2 for the hour, 2 for the minute, 2 for the second, and 2 for a decimal fraction of the second, including the decimal point. The 24-hour clock (00-23) is used.

008 – FIXED LENGTH DATA ELEMENTS-GENERAL INFORMATION**Description:**

Character positions 00-17 and 35-39 are defined the same across all types of material, with special consideration for position 06. The definition of character positions 18-34

Was done independently for each type of material, although certain data elements are defined the same in the specifications for more than one type of material.

Forty character Positions of 008 field

All materials

00-05 - Date entered on file

06 - Type of date/Publication status

07-10 - Date 1

11-14 - Date 2

15-17 - Place of publication, production, or execution

18-34 – This field used for information of particular material

35-37 - Language

38 - Modified record

39 - Cataloging source

Book

18-21 - Illustrations

22 - Target audience

23 - Form of item

24-27 - Nature of contents

28 - Government publication

29 - Conference publication

30 - Festschrift

31 - Index

32 - Undefined

33 - Literary form

34 - Biography

040- CATALOGING SOURCE

Subfield of 040 fields:

- a- Original cataloging agency
- b- Language of cataloging
- c- Transcribing agency *
- d- Modifying agency

Description:

Cataloging source specify the parties responsible for the bibliographic record. To add biblio in KOHA we need those agency names.

245 – TITLE STATEMENT

Subfield of 245 fields:

- a - Title *
- b- Remainder of title
- c- Statement of responsibility, etc
- h- Medium

Description:

Title Statement field consists of the title proper and may also contain the general material designation, remainder of title, other title information, the remainder of the title page transcription, and statement of responsibility.

300 –PHYSICAL DESCRIPTION

Subfield of 300 fields:

- a-Extent *
- b- Other physical details
- c- Dimensions
- e- Accompanying material
- f- Type of unit
- g- Size of unit

Description:

Physical description of the item, including its extent, dimensions, type of unit, size of unit and accompanying material.

942- ADDED ENTRY ELEMENTS (KOHA)

Subfield of 942 fields:

- a- Item type *

Description:

This is item type (book, DVD, CD) of a library, which is defined under this field.

3.1.3.4 KOHA to MARC Database Links:

This page provides a simplified way to map MARC tags and subfields to the non-MARC KOHA database tables for default biblio framework. This can also be done while setting the MARC tag structure, but it is easier to see the relationship between the MARC database and the KOHA database here.

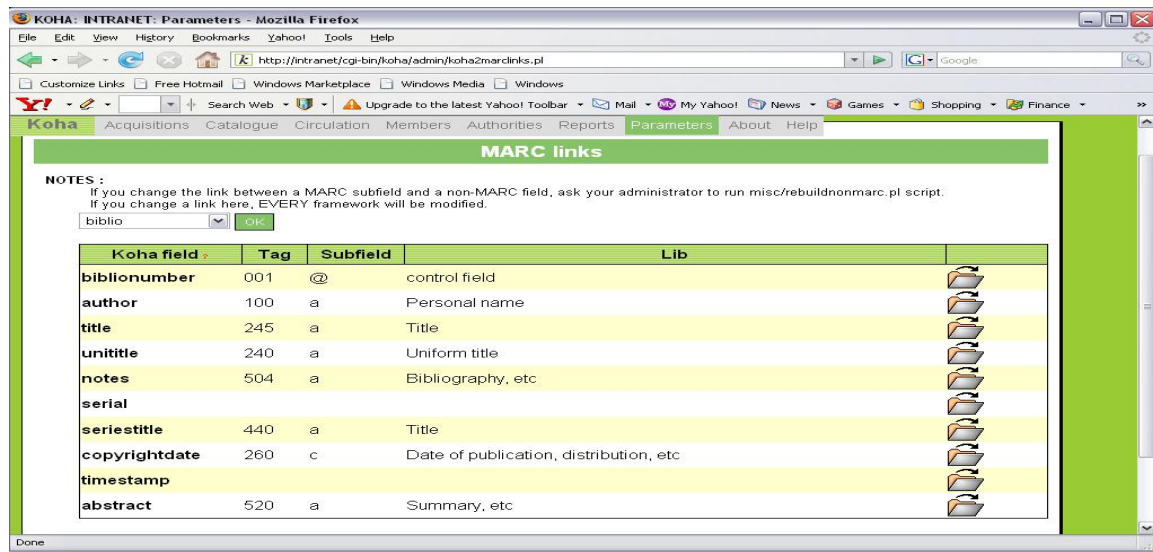
The pull-down menu lists all the KOHA tables that can receive values from the MARC records. The columns from each table are listed below the pull-down menu.

Do not expect to have every KOHA table. Column mapped to a MARC subfield. Some (such as biblionumber, biblioitemnumber, and itemnumber) are values generated by KOHA and will probably be automatically mapped. Others are flags, which are set in the course of normal circulation activities and will contain information that is not part of your MARC record.

This is a one-to-one mapping. In other words, a MARC tag/subfield can be mapped to one, and only one, KOHA table. Column.

MARC data that is not mapped to a KOHA table does not disappear -- it is simply not available for display on circulation screens and on some search results screens.

Figure 3.1.3.4 MARC links

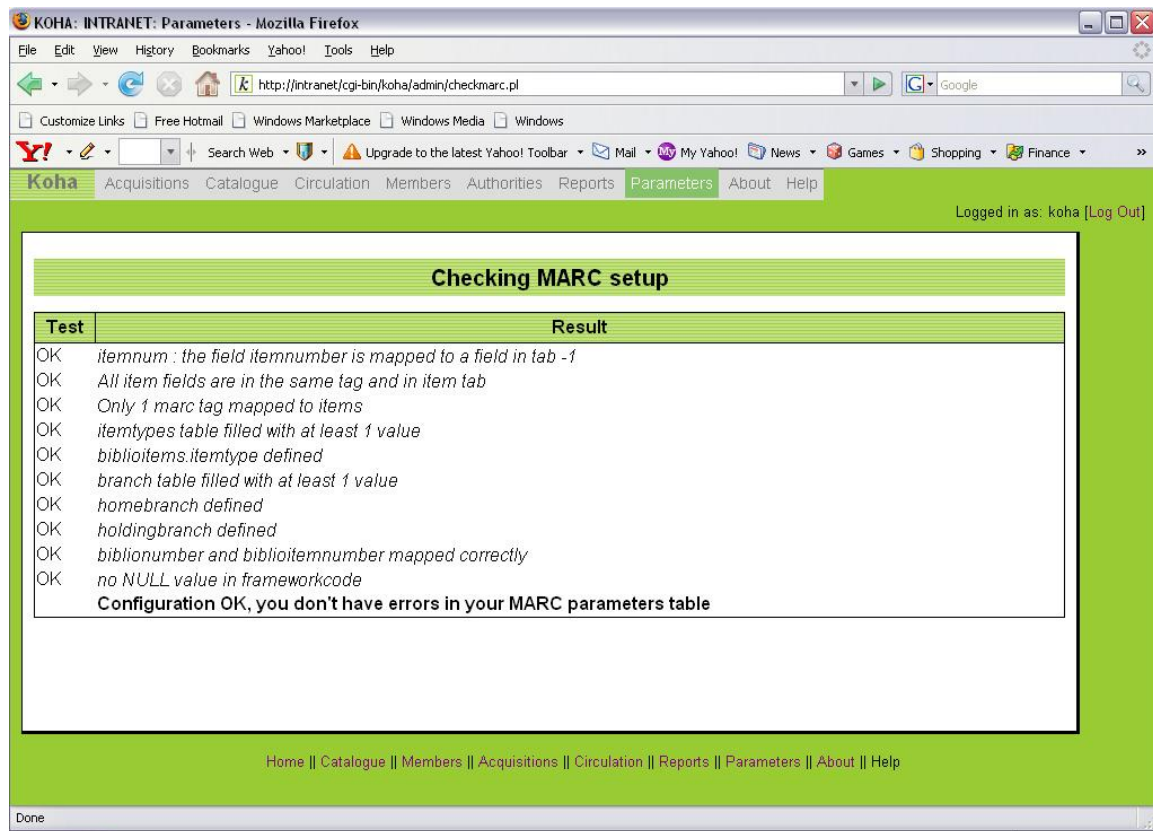


3.1.3.5 MARC Check:

Once you have completed the process of setting up your MARC tag structure and checked your MARC to KOHA mapping (Koha2MarcLinks), click on this link to activate a small program that checks for major errors in your MARC setup.

This MARC check does not guarantee that you will like the first results of your efforts to set up your MARC displays, etc. -- it simply checks for major errors. You will probably revise your MARC setup several times before you are completely pleased with it. Be sure to run checkmarc after every revision.

Figure 3.1.3.5 Checking MARC setup



3.1.3.6. Thesaurus Structure:

We can define as many Authority types as we want.

- With the MARC structure button, you can define the MARC structure of a given authority type
- The tag reported must contain a MARC tag number. Every subfield in the selected tag will be copied to the "destination tag" in the biblio. For example, in UNIMARC, the tag 200 to personal authority will be reported to 600, 700, 701, depending on what is cliqued in the biblio MARC editor.
- The summary contains an ISBD like description to explain how the entry must be shown in the result list. The syntax is:

1. [xxxFFFSyyy] where xxx are up to 3 digits BEFORE the field, FFF the field number, S the subfield code, yyy up to 3 digits AFTER the field.
2. Things outside [] are kept as is (including HTML)
3. Repeatable fields are managed.

NOTE:

In the biblio framework, the reported tag must contain a \$9 subfield, activated in the tab where the tag is, and hidden (hidden maybe omitted, but the field has no reason to appear anywhere). The \$9 subfield in the biblio will contain the Authority number.

Figure 3.1.3.6.1 Auth type Admin

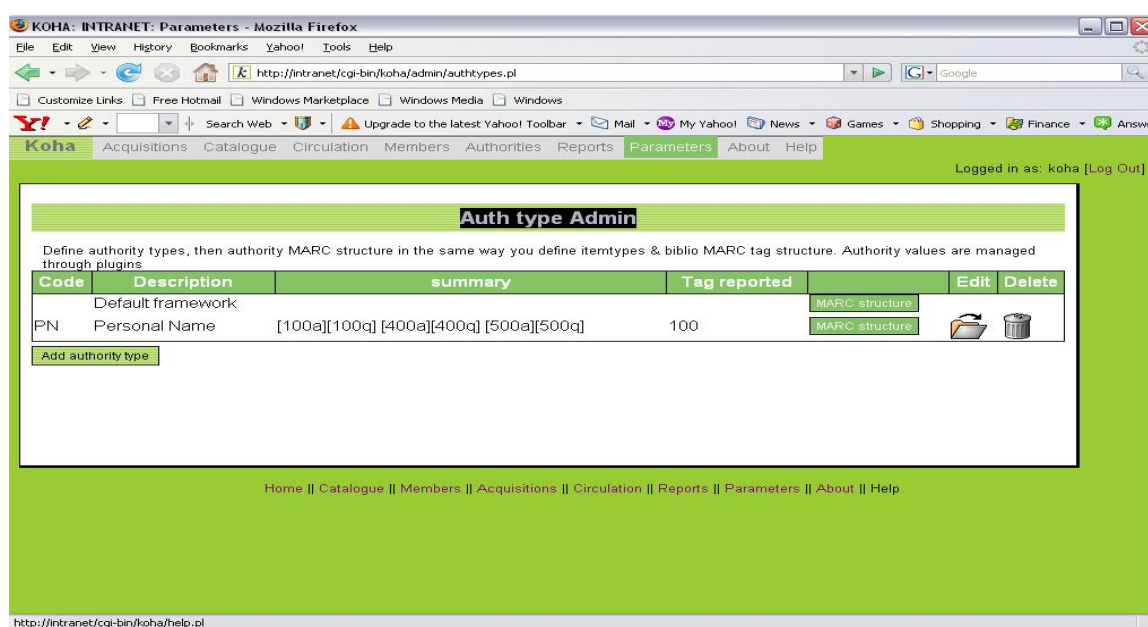


Figure 3.1.3.6.2 Modify authority type

The screenshot shows a web browser window titled "KOHA: INTRANET: Parameters - Mozilla Firefox". The address bar shows the URL: `http://intranet/cgi-bin/koha/admin/authtypes.pl?op=add_form&authtypecode=PN`. The browser's toolbar includes various icons and a search bar. The KOHA interface has a green header with the title "KOHA" and a navigation menu with links: "Acquisitions", "Catalogue", "Circulation", "Members", "Authorities", "Reports", "Parameters", "About", and "Help". The "Parameters" link is highlighted. In the top right corner, it says "Logged in as: koha [Log Out]".

The main content area is titled "Modify authority type" and contains the following form fields:

- Authority type:** PN
- Description:** Personal Name
- Summary:** A large text area containing the following MARC codes: `[100a] [100q]`, `[400a] [400q]`, and `[500a] [500q]`.
- Report tag:** 100. Below this field is a text box with the instruction: "Enter here the number of the tag that will be reported in the biblio (subfield by subfield). For example, in UNIMARC, enter 200 to report every 200 subfield in the 70x biblio".

At the bottom left of the form is a green "OK" button. At the bottom of the page is a breadcrumb trail: "Home || Catalogue || Members || Acquisitions || Circulation || Reports || Parameters || About || Help".

3.1.4 Tools:

3.1.4.1 MARC Biblio Export

3.1.4.2 Upload MARC Records into Reservoir

3.1.4.3 Generate Barcodes

3.1.4.1 MARC Biblio Export:

This is a tool to export your bibliographic records in standard MARC communications format (ISO2709). It exports only the basic bibliographic information with no holdings information other than any holdings information originally loaded into KOHA using the `bulkmarcimport` tool. We can download record (biblio record) from KOHA system .It is useful for migration data.

Figure 3.1.4.1 MARC biblio export

The screenshot shows a web browser window titled "KOHA: INTRANET: Parameters - Mozilla Firefox". The address bar shows the URL "http://intranet/cgi-bin/koha/export/marc.pl". The browser's menu bar includes File, Edit, View, History, Bookmarks, Yahoo!, Tools, and Help. The toolbar contains various icons for navigation and search. The main content area has a green header with the text "MARC biblio export". Below this is a form titled "Select biblios to export" with the following fields: "from biblio number:" and "to biblio number:" (both text boxes), "Document type:" (a dropdown menu), "Branch:" (a dropdown menu with "Default" selected), "from itemcallnumber:" and "to itemcallnumber:" (both text boxes), and "Limit to:" (a text box) followed by "first biblio". A "Note:" states "the items are exported by this tool". An "Export" button is located at the bottom of the form. The footer of the page includes a navigation bar with links: Home || Catalogue || Members || Acquisitions || Circulation || Reports || Parameters || About || Help. The status bar at the bottom shows the URL "http://intranet/cgi-bin/koha/help.pl".

Set all the above information then press export button to download MARC record from KOHA system. From that option we can export our data from KOHA system.

3.1.4.2 Upload MARC Records into Reservoir:

It is useful to import a bunch of iso2709 biblios that can be used later for a quick cataloguing. First, we need to browse your computer to find the MARC record that you grabbed for your item. If you aren't sure if you've already imported a record, select button set to ignore this one, keep the existing one We can "name" the import to help you when you need to choose between more than 1 imported biblio. We can also change char encoding between MARC21 and UNIMARC. We don't need to actually name every import, so you don't need to fill in this box if you don't want to. It is useful for telling imports apart if you've more than one of the same records.

Figure 3.1.4.2 Import into the reservoir

The screenshot shows a web browser window titled 'KOHA: INTRANET: Parameters - Mozilla Firefox'. The address bar shows 'http://intranet/cgi-bin/koha/import/breeding.pl'. The browser's toolbar includes various icons and a search bar. The KOHA navigation menu at the top includes 'Koha', 'Acquisitions', 'Catalogue', 'Circulation', 'Members', 'Authorities', 'Reports', 'Parameters' (highlighted), 'About', and 'Help'. A status bar at the top right indicates 'Logged in as: koha [Log Out]'. The main content area is titled 'Import into the reservoir' and contains the following instructions and form fields:

- Select a file to import into the reservoir. It will be parsed, and for each ISBN found, a new baby will be created in the reservoir.
- If an ISBN already exists in the reservoir, you can choose whether to ignore the new one or overwrite the old one.
- You can enter a name for this import. It may be useful, when creating a biblio, to remember where the suggested MARC data comes from!
- Of course, if the ISBN already exists in the active DB, the biblio will be ignored.

Select the file to import:

Name of this import:

Character encoding:

If ISBN already in reservoir:

- ☒ Ignore this one, keep the existing one
- ☐ Overwrite the existing one with this

At the bottom of the page, there is a navigation bar with links: Home || Catalogue || Members || Acquisitions || Circulation || Reports || Parameters || About || Help.

After upload record from this option go to Catalogue->Add biblio then type ISBN or title of that item which are upload in KOHA that time then press add biblio. After that you can see that record to add in your system.

3.1.4.3 Generate Barcodes:

This utility can be used to print barcode labels for our library items. To use it, we must have the 0.3r77 release of the PDF::API2 Perl module loaded on your compute We need to check during KOHA installation that you have the correct version of PDF::API2. When this is done, you can generate barcodes.

Figure 3.1.4.3.1 Barcodes Generator

KOHA: INTRANET: Parameters - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

http://intranet/cgi-bin/koha/barcodes/barcodes.pl

Customize Links Free Hotmail Windows Marketplace Windows Media Windows

Search Web Upgrade to the latest Yahoo! Toolbar Mail My Yahoo! News Games Shopping Finance Answer

KOHA Home Catalogue Members Acquisitions Circulation Authorities Reports **Parameters** About Help

Printers
Logged in as: koha [Log Out]

Barcodes Generator

Generate barcodes from inventory codes

- Select a range of inventory codes. You can choose a continuous range or individual inventory codes
- Select the standard type to generate barcodes.
- Define the page size for output the PDF.
- Depending on page size, Koha will show you how the page is arranged for each barcode. You can define which point to start printing the page.

Type of Interval: Continuous Range of items
From:
To:
Country Code: Spain
Page Size: A4 [Go to Printer Configuration]
Text under label: If this field is empty, author and title will be used instead

Label number to start printing				
<input checked="" type="radio"/> Label 1	<input type="radio"/> Label 2	<input type="radio"/> Label 3	<input type="radio"/> Label 4	<input type="radio"/> Label 5
<input type="radio"/> Label 6	<input type="radio"/> Label 7	<input type="radio"/> Label 8	<input type="radio"/> Label 9	<input type="radio"/> Label 10

Figure 3.1.4.3.2 Printer Configuration

KOHA: INTRANET: Parameters - Mozilla Firefox

File Edit View History Bookmarks Yahoo! Tools Help

http://intranet/cgi-bin/koha/barcodes/printerConfig.pl

Customize Links Free Hotmail Windows Marketplace Windows Media Windows

Search Web Upgrade to the latest Yahoo! Toolbar Mail My Yahoo! News Games Shopping Finance Answer

KOHA Home Catalogue Members Acquisitions Circulation Authorities Reports **Parameters** About Help

Printers
Logged in as: koha [Log Out]

Printer Configuration

Set de printer configuration corresponding to your environment

- Set width and height of the label that you are going to work with.
- Set your system dpi by default.
- Set the page type.
- Select how many columns and rows are in your page type.
- Set margin left and margin bottom of the page that you are going to use. This parameters will help to center the barcodes into the labels.

Label width (Expressed in mm)	Label height (Expressed in mm)	System dpi	Page Type	Columns	Rows	Margin Bottom (Expressed in mm)	Margin Left (Expressed in mm)
41	21	96	A4	5	13	25	2

Save Settings

First we need to set “Printer Configuration” this option. After set this save the setting then back to page “Barcodes Generator”. Then in this page we need to set some information like Label X, From, To etc. After set those option KOHA will ready to generate barcode of items.

After set up all steps KOHA is ready to use. We can now add member, item in KOHA, can issues book, can hold book etc .A librarian can also see the report of her library system from the report option.

3.2 Problem in KOHA 2.2.9 and Solution:

KOHA 2.2.9, this version has problem which is Z39.50 is not worked. But KOHA 3.0 version supports this. If some one using KOHA 2.2.9 version there is another solution, which is MARC editor (by Terry Reese). MARC editor, this software support Z39.50 server. So we can retrieve data by this software then can upload data to KOHA 2.2.9.

When we install KOHA 2.2.9 on windows XP we need to edit some thing otherwise MARC subfiled option will not work. So we need to do copy from “C:\usr\koha229\intranet\cgi-bin\koha” value_builder folder to “C:\usr\koha229\intranet” this folder.

3.3 Future Work:

We can easily retrieve original book biblio record from any remote database system by Z39.50 server/protocol. But in our country (Bangladesh), most of libraries are using Indian book, which is low price edition. So we need MARC record of this book. But I did not find these records of those books. If some one makes a database for those book records in MARC format we can easily retrieve biblio record by Z39.50 server. If someone wants to create this database he/she

has to know about the MARC21. There are some database, which supply the original book MARC format record and connected with Z39.50 server. Such as-

1. Name: LIBRARY OF CONGRESS

Host: z3950.loc.gov

Database: voyager

Port: 7090

Syntax: MARC21

2. Name: University of London

Host: consull.ull.ac.uk

Port: 210

Database Name: INNOPAC

Syntax: MARC21

Suppose we have a low price edition book name Computer Graphics written by Foley second edition. Now we need MARC record of that book. The minimum record of that book in MARC format is (all fields are not mandatory but some fields are mandatory such as- 000,001,005,008,100, 020, 040,008, 245, 300, 942): -

```
=LDR 01031pam 2200265 a 4500
=001 2559725
=005 20061115064412.0
=008 950315s1995\\mauaf\\b\\001\0\eng\\
=035 \\$9(DLC) 95013631
=906 \\$a7$bc$corignew$d1$eocip$f19$gy-gencatlg
=955 \\$apc01 to JA00 03-16-95; jf06 to subj 03-17-95; jf11 to sl 03-17-95; jf12
03-17-95; CIP ver. pv07 10-12-95
=020 \\$a8178080389
=050 00$aT385$b.C5735 1995
=082 00$a006.6/6$220
=245 00$aComputer graphics :$bprinciples and practice /$cJames D. Foley ...
[et al.].
=250 \\$a2nd ed. in C.
=260 \\$aReading, Mass. :$bAddison-Wesley,$c1995.
=300 \\$axxiii, 1175 p., [36] p. of plates :$bill. (some col.) ;$c25 cm.
=440 \0$aAddison-Wesley systems programming series
```

=504 \aIncludes bibliographical references (p. 1113-1151) and index.
 =650 \0\$aComputer graphics.
 =700 1\$aFoley, James D.,\$d1942-
 =991 \a\$bc-GenColl\$hT385\$i.C5735 1995\$p00023543187\$tCopy 1\$wBOOKS

So First we need to know about MARC format then we can create this record.
 The database must be support MARC format and should have name for Z39.50 connection.

REFERENCES

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- 1.2 <http://www.slideshare.net/vimal0212/open-source-library-management-systems>
- 2.4 <http://www.koha.org/about-koha/>
- 2.5 <http://www.koha.org/about-koha/>
- 3.1 <http://www.kohadocs.org/usersguide/ch01.html>
- 3.1.1 <http://www.kohadocs.org/usersguide/ch01s01.html>
- 3.1.2 <http://www.kohadocs.org/usersguide/ch01s02.html>
- 3.1.3 <http://www.kohadocs.org/usersguide/ch01s03.html>
- 3.1.4 <http://www.kohadocs.org/usersguide/ch01s04.html>
- 4.1 <http://www.apache.org/dist/httpd/binaries/win32/> (apache_2.0.47-win32-x86-no_ssl.msi)
- 4.1 <http://www.activestate.com/store/download.aspx?prdGUID=81fbce82-6bd5-49bc-a915-08d58c2648ca>(Perl)
- 4.1 <http://dev.mysql.com/downloads/mysql/4.1.html> (mysql-4.1 for windows)
- 4.1 <http://www.indexdata.dk/yaz/> (Yaz-for windows)
- 4.1 <http://www.koha.rwjv.com/> (kohav2.2.9 release for windows)
- 4.1 <http://wiki.koha.org/doku.php?id=kohawininstallation> (Installation process)

APPENDICES

4.1. KOHA Installation Process for Windows (XP):

Requirement:

1. Apache
2. Perl
3. MySQL

4. YaZ

5. KOHA

Step1:

Install Apache to - C:\Program Files\Apache Group\

During Apache installation there will appear a dialog box;

Network Domain: (e.g. somenet.com)

Server Name :(e.g. www.somenet.com)

Administrator Mail addresses :(e.g. any[thing@gmail.com](mailto:anything@gmail.com))

Enter the domain address if you know it. You can also type “my domain” or some other text; it should not make a difference if you are running KOHA on a stand-alone computer. Then enter the domain name (Server Name) if it is a part of a domain. You can also fill this box by your computer name without www. and .com. Then enter the mail address (Administrator Mail addresses). Then there is another option on same dialog box’s choose for all user on port 80. Or only for the current user on port 8080. In my installation I have chosen first one option. Then there will appear another dialog box, in this dialog box choose Typical installation

And then choose C:\Program Files\Apache Group\. After complete installation restart your machine if it asked.

Step2:

Install MySQL to – C:\mysql

Unzip file the run setup.exe file install to C:\mysql and choose Typical install to complete the installation.

Step3:

Install Perl to C:\usr\

During perl installation second or third dialog box we should be very careful to change installation path to C:\usr\. Otherwise KOHA will not work. Accept the

default setting rest of the install dialogs. It is not necessary to install any additional Perl modules.

Step4:

If you have previously installed KOHA using install package provided here, consider uninstalling older version before install newer version. First stop “MySQL” and then save the data if you want.

Then go to control panel->add or remove->uninstall previous version.

Step5:

Run KOHA windows install. It will first check Apache, MySQL, Perl. If there will show any error message then stop the installation and fix the error. If there is no error then after the couple of dialog box you will be asked if you want to do a Full or Custom install. You should choose Full install. Unless you are an experienced user and plan to manually configure all the programs to work together. On the backup replaced files dialog, make a note of where backup files will be stored in case you need to access them. Continue and allow the install to complete.

Step6:

Install YAZ

Run Index Data YAZ install. Take note of the location where you install. Right click My Computer -> Properties -> Advanced Tab -> Environment Variables → in the lower System Variables window click on Path and then the edit button. Cursor all the way to the end of the existing path, add a semicolon and the the path to the Yaz bin folder Modify the PATH environment variable and add the location of the program “;C:\Program Files\YAZ\bin”. Restart your machine. This procedure is necessary to enable the Z39.50 search feature of KOHA.

Running KOHA First Time:

If you chose to do a full install of KOHA, you should have two icons in your System Tray - one a Feather and the other a Traffic Light. You can access the Apache Service Monitor by right clicking on the feather. You can use WinmySQLAdmin to control the MySQL database by clicking on the Traffic Light. You'll be given options to Shutdown or Start the MySQL database server. If the Traffic Light is green and the feather has a green arrow (rather than a red dot) in the small white circle, then both MYSQL and Apache are running and you should be ready to run KOHA.

Start your browser-Once you are sure both Apache and MySQL are running, start Internet Explorer and type either OPAC or intranet on the address bar to access either the OPAC or Intranet interface to KOHA. The default login for the Intranet interface is koha \ koha.

END