



LibMS

(Installation Manual)

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Product Brief Introduction & License

LibMS is a multi-institutional, multi-layer, multi-lingual library management system.

Elaborating the term multi-institutional means that the system is running on one server namely on IITK server and any interested institute wishes to use it can send request to have an account to access the system, irrespective of its local requirements like database server, local server. The system is running as a service on IITK server and interested institution can use all the services provided by the system free of cost. System can also be installed locally if someone wants to install.

The term multi-layer means after successful access to the system the user can create multiple libraries inside its own vicinity. So the system becomes multilayered as dependent libraries can be created inside one independent library.

The term multi-lingual means the system provides the user with interfaces in different languages thus breaking the barrier of language boundation and having the essence of truly local.

Feedback

We would appreciate any constructive feedback on this document. Please let us have your Suggestions, Corrections, or Modifications by mail to amuedrp@gmail.com.

Introduction

2.1 Prerequisites Software Requirement

The Softwares that you need to be installed on your Local PC for running this Project are as follows:

1. MySql Server 5.1
2. Ant 1.7
3. Tomcat 6.0.18
4. Java 1.6

Apart from above softwares, You must have

- a) Valid Gmail Account (For Sending Mail From WebAdmin to Register Libraries) &
- b) Internet Connection

2.2 Software Installation guidelines

1) Installation Step of Java

For Linux OS

Click on Application->Accessories->Terminal

a) **Debian, Ubuntu, etc.**

On the command line, type:

```
$ sudo apt-get install openjdk-6-jre
```

The openjdk-6-jre package contains just the Java Runtime Environment. If you want to develop Java programs then install the openjdk-6-jdk package.

b) **Fedora, Oracle Linux, Red Hat Enterprise Linux, etc.**

On the command line, type:

```
$ su -c "yum install java-1.6.0-openjdk"
```

The java-1.6.0-openjdk package contains just the Java Runtime Environment. If you want to develop Java programs then install the java-1.6.0-openjdk-devel package.

For Further Ref Click here : <http://openjdk.java.net/install/>

For Window OS

You can download the latest version of jdk from <http://java.sun.com/javase/downloads/index.jsp>. Once you download the exe file you can now install it.

To install the jdk, double click on the downloaded exe file (jdk-6u1-windows-i586-p.exe)

For Further Ref Click on :

<http://www.roseindia.net/java/learn-java-in-a-day/download-and-install-java.shtml>

2) Install Tomcat Server 6.0.18

For Linux OS

Step 1: Download Tomcat 6.0.18

<http://tomcat.apache.org/download-60.cgi> and download the Binary Distribution

We recommend to install Tomcat in the "/home/User" directory. Thus copy the downloaded file into "/home/User".

Step 2: Extract it with

```
$tar xzvf apache-tomcat-6.0.18.tar.gz
```

Step 3: Test Tomcat

Start Tomcat with:

```
/home/user/apache-tomcat-6.0.18/bin/startup.sh
```

Hit <http://localhost:8080>. If all is fine you should see the Tomcat homepage.

For Further ref Click here:

For Windows OS

Step 1: Download Tomcat 6.0.18 from the given link

<http://tomcat.apache.org/download-60.cgi>

Step 2: Install it by double click on it and specify the location where you want to Install it

Step 3: Test Tomcat

Start Tomcat by Double Click on

```
C:\ApacheSoftwareFoundation\Tomcat Server 6.0\bin\startup.exe
```

Open Browser and Hit <http://localhost:8080>. If all is fine you should see the Tomcat homepage.

For Further ref Click here: <http://tomcat.apache.org/download-60.cgi>

3) Install Ant 1.7

You need the Java build tool *Apache Ant* to install to Compile the project and Build war files. To run Apache Ant, you will require a correctly installed Java Runtime Environment (JRE).

1. Download and Extract

Download the Apache Ant binary release from <http://ant.apache.org/bindownload.cgi>. Once it is downloaded, extract it in a preferred installation location, such as c:\Program Files\Apache\Ant\ for **Windows** or /opt/apache-ant-1.8/ for **Linux**.

2. Add the ANT_HOME Environment Variable

Create an environmental variable called ANT_HOME. This variable has to contain the path created in the previous step.

- To do this on Red Hat Enterprise Linux, add the following line to the ~/.bash_profile file, substituting the path below with that which you created in the previous step.

```
export ANT_HOME=/opt/apache-ant-1.7.1
```

- **On Microsoft Windows**, do this by click on the **Start Menu**, opening the **Control Panel** and selecting **System -> Advanced -> Environment Variables**.

Create a new variable, call it ANT_HOME and configure it to point to the directory you created in the previous step.

3. Include bin in the PATH

Append the Ant installation's bin directory to the PATH environmental variable.

- On Unix/Linux systems, do this by adding the following line to the ~/.bash_profile file. (Put it after the one which sets the ANT_HOME variable):

```
export PATH=$PATH:$ANT_HOME/bin
```

- On **Microsoft Windows**, do this task by opening the **Control Panel** and selecting **System -> Advanced -> Environment Variables -> System Variables**. Edit the PATH variable and append the text ;%ANT_HOME%\bin.

To test the Apache Ant installation, run ant -version from a terminal. The output should look similar to this:

```
$ ant -version
Apache Ant version 1.7 compiled on June 27 2008
```

For Further Details Click here :

http://docs.redhat.com/docs/en-US/JBoss_Enterprise_SOA_Platform/5/html/SOA_Getting_Started_Guide/appe-install_ant.html

4)Install MySQL 5.1

For Red Hat and similar distributions, the MySQL distribution is divided into a number of separate packages, mysql for the client tools, mysql-server for the server and associated tools, and mysql-lib for the libraries. The libraries are required if you want to provide connectivity from different languages and environments such as Perl, Python and others.

To install, use the **yum** command to specify the packages that you want to install. For example:

```
root-shell> yum install mysql mysql-server mysql-lib mysql-server
```

MySQL and the MySQL server should now be installed. A sample configuration file is installed into /etc/my.cnf. An init script, to start and stop the server, will have been installed into /etc/init.d/mysqld. To start the MySQL server use service:

```
root-shell> service mysqld start
```

To enable the server to be started and stopped automatically during boot, use **chkconfig**:

```
root-shell> chkconfig --levels 235 mysqld on
```

Which enables the MySQL server to be started (and stopped) automatically at the specified the run levels.

The database tables will have been automatically created for you, if they do not already exist. You should, however, run [mysql secure installation](#) to set the root passwords on your server.

Default port of MySQL is 3306

For Further Details Click here :

<http://dev.mysql.com/doc/refman/5.1/en/linux-installation-native.html>

For Window OS

Step 1: Download MySQL Server for Windows from the given link

<http://dev.mysql.com/downloads/mysql/>

Step 2: Install it by double click on it and Follow the Steps.

Step 3: Please Specify root password there

For Further ref Click here:

<http://www.wikihow.com/Install-the-MySQL-Database-Server-on-Your-Windows-PC>

2.3 Checking for Installation

1) For Linux OS

1.1) Install Java

Open terminal from application->accessories->Terminal and type the given command

\$java -version

1.2) Install Tomcat Server 6.18

In the browser type Hit <http://localhost:8080> . It has to display welcome page of apache Tomcat Server.

1.3) Install Ant 1.7

Open terminal from application->accessories->Terminal and type the given command

\$ant -version

1.4) Install MySQL 5.1

Open terminal from application->accessories->Terminal and type the given command

\$mysql -u root -p <Press Enter>

It will prompt for password and after successful login can move on mysql command prompt

2) For Windows OS

2.1) Install Java

Click on Start->Run, Type cmd and press enter, Now Type the given command

C:\>java -version

2.2) Install Tomcat Server 6.0

In the browser type Hit <http://localhost:8080> . It has to display welcome page of apache Tomcat Server.

2.3) Install ANT 1.7

C:\>ant -version

2.4) Install MySQL 5.1

Click on Start->Run, Type **mysql -u root -p <Press Enter>**

It will prompt for password and after successful login can move on mysql command prompt

Importing DataBase Script

3.1 Create databases

a) For Windows PC

Click on Start->Run, Type `mysql -u root -p` <Press Enter>

It will prompt for password and after successful login can move on mysql command prompt

`mysql>create database libms;`

b) For Linux PC

Open terminal from application->accessories->Terminal and type the given command

`$mysql -u root -p` <Press Enter>

It will prompt for password and after successful login can move on mysql command prompt

`mysql>create database libms;`

3.2 Import SQL Script File in MySQL

a) For Windows PC

Step 1: Click on Start->Run, Type `cmd`

Step 2: type the following command

`C:\>mysql -u root -p libms < LibMSScript.sql`

It will prompt for password and after successful authentication It will import all table from script to LibMS Database.

Note : LibMSScript.sql file along with path is required in case if not in current working directory location

b) For Linux PC

Step 1: open terminal in Linux from Application->Accessories->Terminal

Step 2: type the following command

`C:\>mysql -u root -p libms < LibMSScript.sql`

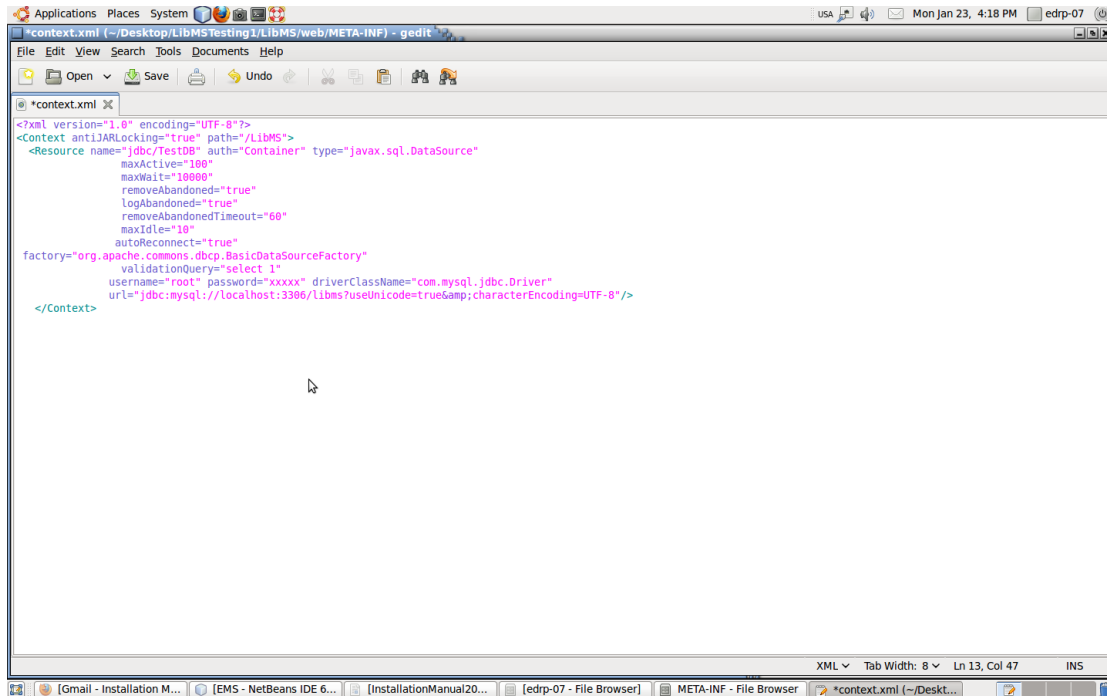
It will prompt for password and after successful authentication It will import all table from script to LibMS Database.

Note : LibMSScript.sql file along with path is required in case if not in current working directory location

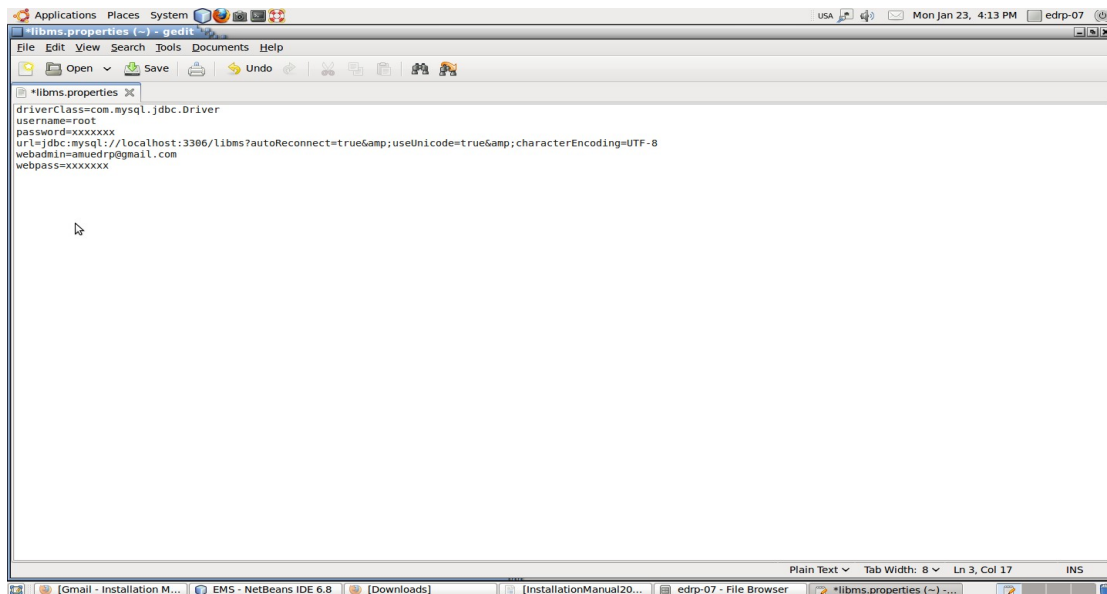
Manual Setting

4.1 Edit the Configuration Files

- a) Modify Conext.xml of Web/META-INF File and add DB Username & Password in it.



- b) store libms.properties file in Linux home directory having following keys



b) Add WebAdmin Email/Password

Step 1: Open `libms.properties` file and

replace amuedrp@gmail.com with your webadmin gmail Id and specify webadmin email password in it without any additional spaces.

Deployment of Project

Checkout the LibMS Folder and save in apache Tomcat Folder on your Local PC.

For Linux OS

Step 1: Click on Application->Accessories->Terminal type the following command

```
/home/user$svn -co http://202.141.40.215/repos/amuedrp/trunk/LibMS
```

Step 2: Move LibMS Project to `/home/user/apache-tomcat6.0.18/webapps` folder.

5.1Clean and Build Using Ant

For Windows OS

Step 1: Click on Start->Run, Type cmd

Step 2: Move in LibMS Project and type ant

C:\ApacheSoftwareFoundation\Apache Tomcat 6.0\webapps\LibMS>ant <Press Enter>

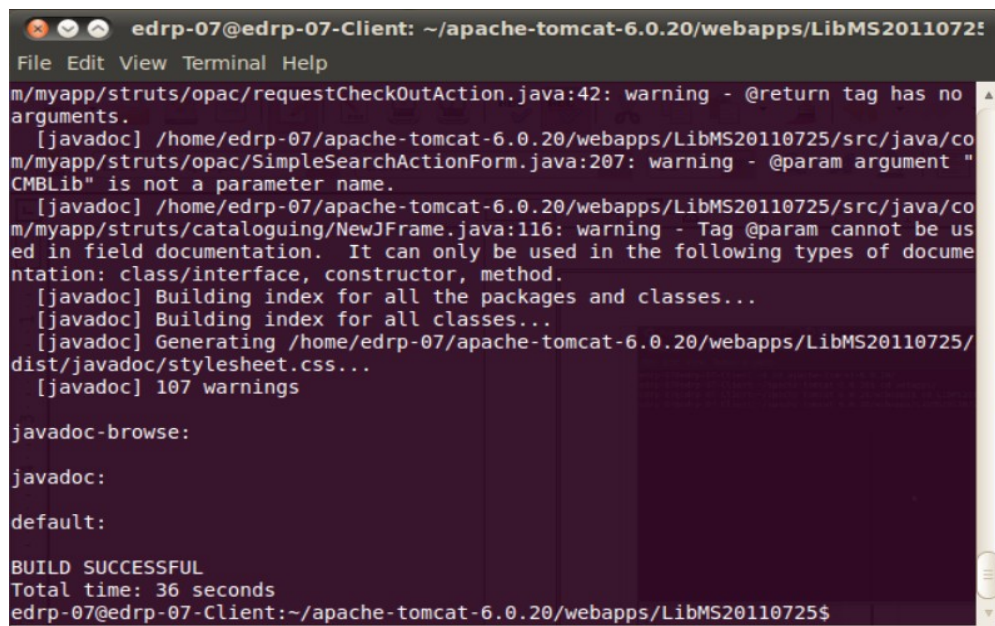
It will display build successfull message.

For Linux OS

Step 1: Click on Application->Accessoires->Terminal

Step 2: Move in LibMS Project and type ant

\home\User\apache-tomcat 6.0.18\webapps\LibMS>ant <Press Enter>



```
edrp-07@edrp-07-Client: ~/apache-tomcat-6.0.20/webapps/LibMS20110725
File Edit View Terminal Help
m/myapp/struts/opac/requestCheckOutAction.java:42: warning - @return tag has no arguments.
[javadoc] /home/edrp-07/apache-tomcat-6.0.20/webapps/LibMS20110725/src/java/com/myapp/struts/opac/SimpleSearchActionForm.java:207: warning - @param argument "CMBLib" is not a parameter name.
[javadoc] /home/edrp-07/apache-tomcat-6.0.20/webapps/LibMS20110725/src/java/com/myapp/struts/cataloguing/NewJFrame.java:116: warning - Tag @param cannot be used in field documentation. It can only be used in the following types of documentation: class/interface, constructor, method.
[javadoc] Building index for all the packages and classes...
[javadoc] Building index for all classes...
[javadoc] Generating /home/edrp-07/apache-tomcat-6.0.20/webapps/LibMS20110725/dist/javadoc/styleSheet.css...
[javadoc] 107 warnings

javadoc-browse:
javadoc:
default:

BUILD SUCCESSFUL
Total time: 36 seconds
edrp-07@edrp-07-Client:~/apache-tomcat-6.0.20/webapps/LibMS20110725$
```

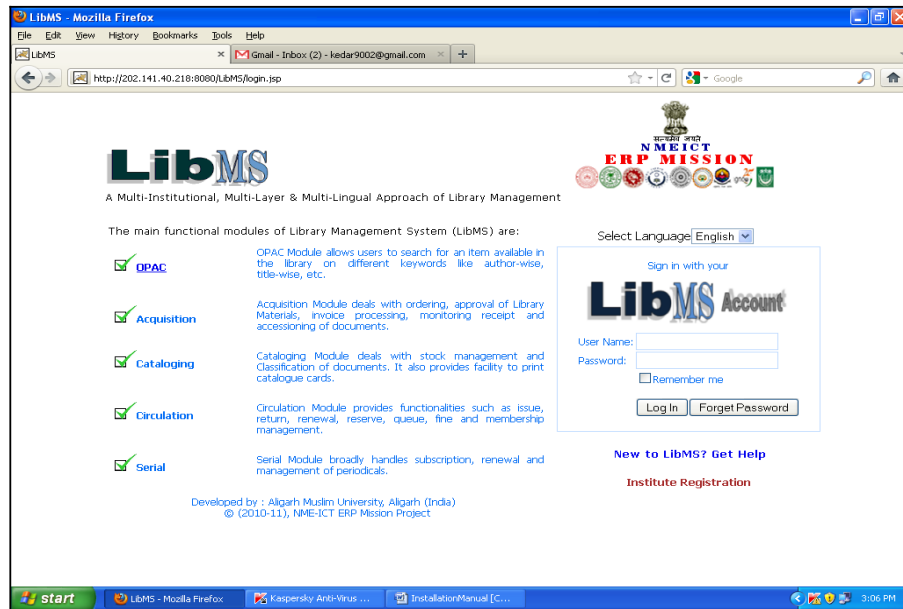
It will display build successfull message.

5.2 Deployment of Project

For Linux OS/Window OS

Step 1 : Start apache tomcat and open browser

Step 2: In the browser type Hit <http://localhost:8080/LibMS> . It has to display welcome page of LibMS.



For Super Admin Login username and Passwords are given below:

Enter User Name- 'superadmin'

Enter Password- 'superadmin'



Trouble-shooting

6.1 Data Base Connectivity problem

At the Time of login from Login.jsp, You might face this situation After Entering valid userid and password. To Resolve this problem please check Following details:

- 1.Check port no of MySQL is 3306 set in META-INF/Context.xml
- 2.Check database user name and password is correctly mention in META-INF/Context.xml

6.2Mail Sending Error

Email in not Sent Successfully to library Staff from WebAdmin. To Resolve this problem please check Following details:

- 1.Check correct password mention in n libms.properties file
- 2.Check correct webadmin email id mention in n libms.properties file