

Installing KOHA Software On Debian 5.0.1 LENNY Operating System
(Last Updated On 2nd August 2009)

Install Debian 5.0.1 Lenny from the DVD provided with training kit debian-501-i386-DBD-1.iso.

Set hostname (for the workshop it is “localhost” you can ask your system administrator for “hostname” of your computer) and domain name (it will pickup automatically if you machine is on institute network). If proper hostname and domain name is provided your KOHA service can be made available to all either on Internet/Intranet as per your institute network settings.

Add root password and create koha as a user and enter password for koha while Debian installation.

Select network mirror options if you are connected to network while installing Debian. This is essential to check to download all latest Dependency packages which are required for Debian Install. If you are installing Debian without network then tick on No network mirror option and continue Debian Installation.

While installing Debian, In the software selection option only select Desktop Environment & Standard System options. Do not select at the moment Web Server, Print Server, DNS Server, File Server, Mail Server Options.

Download koha latest release ie koha-3.00.03.tar.gz from koha download page <http://koha.org/download> and click on latest release.

Or Copy koha-3.00.03.tar.gz file provided along with the training DVD/CD and carry following commands. Please make sure that you need to know few “vi editor commands” hence check the “vi editor manual” provided as a print copy. Take help of the “Vi editor manual” to follow successful installation of KOHA. You can also use “gedit” command if you are not comfortable in using vi editor commands.

Open the Terminal window (Applications-Accessories-Terminal) and in the window select (Right click on this and add this to panel so that many times you will require to use terminal window)

```
koha@localhost:~$ su  
[enter root password here]
```

Insert DVD/CD which contains koha installable files.

```
localhost:/home/koha#cd /media/cdrom0
```

```
localhost:/media/cdrom0#cd training_kit/
```

```
localhost:/media/cdrom0/trainingkit_koha#cp koha-3.00.03.tar.gz /root/
```

```
localhost:/media/cdrom0/trainingkit_koha#cd /root/
```

```
localhost:~#tar xvzf koha-3.00.03.tar.gz
```

Try the following commands to start the installation of software dependencies for KOHA installation.

```
localhost:~#cd /root/koha-3.00.03
```

```
localhost:~/koha-3.00.03#gedit /etc/apt/sources.list
```

(add the following lines in the sources.list file and save and exit the file). You can copy these files by opening one more window and by opening the file /root/koha-3.00.03/INSTALL.debian-lenny and selecting and copying and pasting the following lines in /etc/apt/sources.list at the end of the file.

```
# Index Data
```

```
deb http://ftp.indexdata.dk/debian lenny main
```

```
deb-src http://ftp.indexdata.dk/debian lenny main
```

```
localhost:~/koha-3.00.03# wget http://ftp.indexdata.dk/debian/indexdata.asc
```

```
localhost:~#sudo apt-key add indexdata.asc
```

```
localhost:~#apt-get update
```

We could sort out the problem of Getting DBD-MySQL error which occurred while KOHA installation and here are the steps for solving that error which was occurring during KOHA workshop held at NCRA, Pune.

Go to System-Administration-Synaptic Manager and search for the following files and mark them for installation by accepting “Apply” Command

```
apache2  
apache2-doc  
apache2-mpm-event  
apache2-mpm-worker  
apache2-src  
curl  
daemon  
ftpd  
git-core  
git-email  
libapache2-mod-perl2  
libapache2-mod-perl2-dev  
libapache2-mod-python  
libmysqlclient15-dev  
mysql-client  
mysql-server  
libdbd-mysql  
mysql-admin  
libdbd-sqlite3  
libdbd-sqlite3-perl
```

Open the following file

```
localhost:~/koha-3.00.03#gedit /root/koha-3.00.03/install_misc/debian-lenny.packages
```

(In this file delete apache2 install, apache2-mpm-worker install, libdbd-mysql-perl install, libdbd-mysql-perl install, libdbd-sqlite3-perl install, libdbi-perl install, mysql-server install) related lines and save the file and then run the following commands. Since we have separately installed those files through Synaptic we will not install those files through dselect).

```
localhost:~/koha-3.00.03#sudo dpkg --set-selections </root/koha-3.00.03/install_misc/debian-lenny.packages
```

```
localhost:~/koha-3.00.03#sudo apt-get install dselect
```

```
localhost:~/koha-3.00.03#sudo dselect
```

Choose [I]ninstall and accept packages to be installed (hit return) (may take a while)
Choose [C]onfigure, [R]emove and [Q]uit until dselect has completed.
Say “yes” to delete any previously downloaded .deb files

Now there is need to download separately all PERL modules which are not installed by “dselect”

command. Login again as root and on root type. If you are using CPAN for the first time it will ask whether CPAN should configure as much as automatically say “yes” here and keep pressing default values until the CPAN installation of each module is over where you will see “make install ok” option.

Installation of Missing CPAN Modules:

```
localhost:~/koha-3.00.03#cpan Algorithm::CheckDigits Class::Adapter GD::Barcode
```

```
localhost:~/koha-3.00.03# cpan HTTP::OAI JSON Params::Util PDF::Reuse::Barcode
```

```
localhost:~/koha-3.00.03# cpan SMS::Send Storable Test::Simple GD Text::CSV
```

```
localhost:~/koha-3.00.03# cpan PDF::API2 HTML::Template::Pro Text::CSV_XS
```

Add KOHA USER:

```
localhost:~/koha-3.00.03#adduser koha
```

[enter password for user koha ie 'root123'. This is essential only if you have not created koha as a user while Debian Installation].

CREATE KOHA Environments:

```
localhost:~/koha-3.00.03#gedit /etc/profile
```

(add the following lines in profile file at the end and save and exit)

```
export PERL5LIB=/usr/share/koha/lib
export KOHA_CONF=/etc/koha/koha-conf.xml
```

UTF-8 Encoding in Apache:-

Open a terminal

```
localhost:~/koha-3.00.03# gedit /etc/apache/apache2.conf
(Add following three lines at the end of the file in apache2.conf and save and exit)
```

```
#UTF8 support for apache2
ServerName localhost
#[Here you if have proper name for your computer enter the computer name here instead of
"localhost"]
AddDefaultCharset UTF-8
AddCharset UTF-8 .utf8
```

UTF-8 Encoding in MySQL:

```
localhost:~/koha-3.00.03# gedit /etc/mysql/my.cnf
```

(open my.cnf file and add after the "Basic Setting" and after skip-external-locking line add the following lines)

```
# UTF-8 Defaults for Koha
init-connect="SET NAMES utf8"
character-set-server=utf8
default-character-set=utf8
collation-server=utf8_general_ci
character_set_client=utf8
```

```
localhost:~/koha-3.00.03# gedit /etc/apache2/ports.conf
(open ports.conf file and below Listen 80 add following line and save file and exit)
```

```
Listen 8080
```

Creation of MySQL Database for KOHA:

```
localhost:~/koha-3.00.03#mysql -u root -p
(Enter mysql root password)
```

```
mysql>create database koha;
```

```
mysql>grant all privileges on koha.* to 'kohaadmin'@'localhost' identified by 'katikoan';
```

Now KOHA can be installed by following commands:

```
localhost:~# cd /root/koha-3.00.03
```

```
localhost:~/koha-3.00.03# perl Makefile.PL
```

answer all questions and enter password and username for koha and zebra server installation. [here password is “katikoan” or as defined by you and koha mysql database user is “kohaadmin”]. If installation process ends with any missing PERL modules, try to install those missing modues from a terminal and tying cpan and module name and then again try above perl Makefile.PL command.

Here are the default values you should select when you run perl Makefile.PL command

Choose the following options:

Installation mode (dev, single, standard) [standard] = standard
Base installation directory [/usr/share/koha] = /usr/share/koha
User account [koha] = koha
Group [koha] = koha
DBMS to use (Pg, mysql) [mysql] = mysql
Database server [localhost] = localhost
Please specify the port used to connect to the DMBS [3306] = 3306
Please specify the name of the database to be used by Koha [koha] = koha
Please specify the user that owns the database to be used by Koha [kohaadmin] kohaadmin
NOTE:This user (kohaadmin) and password are both the MySQL login/pwd and the web admin interface login/pwd.
Please specify the password of the user that owns the database to be used by Koha [katikoan]
= katikoan (or you can select the password as you wish)
Install the Zebra configuration files? (no, yes) [yes] = yes
MARC format for Zebra indexing (marc21, unimarc) [marc21] = marc21
Primary language for Zebra indexing (en, fr) [en]
Authorities indexing mode (dom, grs1) [grs1] = grs
Please specify Zebra database user [kohouser] = kohouser
Please specify the Zebra database password [zebrastripes] = zebrastripes [you can select your own password here]
Install the SRU configuration files? (no, yes) [yes] = yes
SRU Database host? [localhost] = localhost
SRU port for bibliographic data? [9998] = 9998
SRU port for authority data? [9999] = 9999
Install the PazPar2 configuration files? [no] = no
Would you like to run the database-dependent test suite? (no, yes) [no] = no

Compile the Perl code

```
localhost:~/koha-3.00.03~# make
```

```
localhost:~/koha-3.00.03~#make test
```

```
localhost:~/koha-3.00.03~#make install
```

```
localhost:~/koha-3.00.03#ln -s /etc/koha/koha-httpd.conf /etc/apache2/sites-available/koha
```

```
localhost:~/koha-3.00.03#sudo a2enmod rewrite
```

```
localhost:~/koha-3.00.03#sudo a2ensite koha
```

```
localhost:~/koha-3.00.03#sudo apache2ctl restart
```

```
localhost:~/koha-3.00.03# ln -s /usr/share/koha/bin/koha-zebra-ctl.sh /etc/init.d/koha-zebra-daemon
```

```
localhost:~/koha-3.00.03# sudo update-rc.d koha-zebra-daemon defaults
```

```
localhost:~/koha-3.00.03# ln -s /usr/share/koha/bin/koha-zebraqueue-ctl.sh /etc/init.d/koha-zebraqueue-daemon
```

```
localhost:~/koha-3.00.03#sudo update-rc.d koha-zebraqueue-daemon defaults
```

Cronjob Settings:

```
localhost:~/koha-3.00.3#cd /usr/share/koha/bin/cronjobs
```

```
localhost:~/usr/share/koha/bin/cronjobs#crontab -u root crontab.example
```

```
localhost:~/usr/share/koha/bin/cronjobs#crontab -u koha crontab.example
```

```
localhost:~/usr/share/koha/bin/cronjobs#crontab -e
```

Add the following lines here,

```
#Environment
```

```
PERL5LIB=/usr/share/koha/lib
```

```
KOHA_CONF=/etc/koha/koha-conf.xml
```

```
#Some additional variables
```

```
KOHA_CRON_PATH=/usr/share/koha/bin/cronjobs
```

Save the file by pressing ctrl+O buttons

Press enter

Quit the editor by pressing ctrl+X buttons

Run the Web installer now to populate the database and initial configuration by pointing browser to and selecting various options:

<http://localhost:8080/> [Here you can enter your computer name if you have assigned any or enter localhost]

To search for the records in OPAC you have to index data with zebra indexing by running the following command by logging in as koha

```
koha@localhost:~#cd /usr/share/koha/bin/migration_tools
```

```
koha@localhost:~#./rebuild_zebra.pl -b -a -z
```

If the above command complains about C4, do the following

```
localhost:~#cp -a /usr/share/koha/lib/* /etc/perl/
```

Re-run then rebuild_zebra and check the database.

and go to <http://localhost> and search for the KOHA database when records are added into the database.