

LAMP Installation – Version 3.0

Overview:

Since the previous version of the LAMP installation was published, a number of changes have occurred in the Debian based (and formerly Debian based) distributions. Most notable is the fact that the utility application “tasksel” is no longer installed as part of the base operating system in a lot of distribution options. This means that the utility must be installed before commencing with the tasksel LAMP installation.

This paper will show you how to do the LAMP installation using the tasksel approach along with installing LAMP via the command line. The only thing you gain by using the tasksel method is that you avoid entering a few commands at the terminal level (no big deal). The dialogs connected with the MySQL portion of the installation are the same. My recommendation is to use the terminal level installation.

Intended Audience:

The reader should have successfully installed a Debian-based Linux operating system or a Linux distro that utilizes the synaptic package management system. Additionally, the reader should know how to access the command line (terminal mode) in their desktop environment.

Preparation:

During the course of the MySQL and phpMyAdmin installation, the user will be prompted for a root password. It is my strong recommendation that this feature be utilized during the installation. Keep the password simple and write it down beforehand.

Tasksel Method:

1. Access the terminal mode
2. At the terminal command prompt : **\$sudo tasksel**
3. If a small screen appears with various options, using the up-down cursor buttons move to the LAMP Server option and click <space>. In some of the newer installations of tasksel, I have seen the installation broken into 2 separate items : Web Server and SQL Database. If this is the case select both of these options. At the conclusion, use your tab key to move to the <Ok> prompt. Note : **DO NOT DE-SELECT ANY OTHER APPLICATIONS THAT MAY BE CHECKED IN THE TASKSEL OPTIONS** (you may break your system big time).
4. Respond to the prompts during the installation process.

Note : On step 2, if you do not see the dialog appear, that probably means that the tasksel utility is not installed. In this case at the command level : **sudo apt-get install tasksel** . Then proceed again starting with step #2.

LAMP Installation – Version 3.0

Command or Terminal Method:

1. At the command prompt :

```
$ sudo apt-get install apache2 php5 libapache2-mod-php5  
$ sudo apt-get install mysql-server mysql-client php5-mysql
```

Post Installation:

Following the successful installation of the LAMP server from above, there are a few items that should be addressed.

Assuming that the new LAMP server installation is to be used in a general development fashion (no use as a publicly hosted site), the permissions on the directories where the web server files reside should be changed. Changing the ownership and permissions will enable easy development through your text editor or choice.

To change the ownership of the parent directory, at the terminal :

```
$ sudo chown -R <your login user id>/var/www  
$ sudo chgrp -R <your login user id> /var/www
```

What you have done in the above is to assign the ownership and group ownership of the web server home directory (/var/www) to yourself. The “-R” flag sets the permissions set at recursive meaning that the same rules apply to all directories and files contained within /var/www.

The next recommended post installation activity is to install the web-based MySQL administration application : phpMyAdmin. This is one of the more common tools available to easily administer the MySQL databases and it's components. The installation is handled again at the terminal level as:

```
$ sudo apt-get install phpmyadmin
```

As part of the phpMyAdmin process, you will be prompted to enter your MySQL root password a couple of times.

The newly installed phpMyAdmin can be accessed via the following url:

[**http://localhost/phpmyadmin**](http://localhost/phpmyadmin)

LAMP Installation – Version 3.0

If you plan on using a php library that utilizes the gd graphing library (like jpgraph), it is recommended that you check to make sure the library has been installed as part of your LAMP installation. The easiest way to do this is to verify via a phpinfo script. To make this simple script, launch your text editor of choice (gedit is my favorite). Insert the following into a blank file:

```
<?PHP  
phpinfo();  
?>
```

Save the file as say /var/www/phpinfo.php.

To access the just-completed phpinfo file, from your browser:

<http://localhost/phpinfo.php>

If you find that the gd library has not been part of the PHP build you can easily add the library by launching the Synaptic Package Manager from your menu. When the application has started, do a search on “PHP”. Within the listings you should find a package like php5-gd (or similarly worded). Select and install the package. The LAMP server will need to be restarted to utilize this library.

In most of the recent installations that I have done, when the web server is launched and access is attempted to a file with a php extension, the browser wants to either download the file or search for an application to open it with. For the new user, this can be a frustrating experience. If this condition exists, try clearing the cache from the browser and try the page again.

If you plan on using your new LAMP installation as a public site, there are certain security tasks that should be done. Consult a Google search on this topic for further assistance.

Finally, all of your web application files will reside within /var/www. The url for all of these development web pages will be in the form of <http://localhost/<file name>>.