Debian Install

This is an installation page. It was updated in 2020 and if there may be some difference from Debian version to Debian version the process is pretty standard and almost the same for years.

Install Debian 10 (stable)

1. Download your Linux Debian distro and follow the instruction to create a bootable volume at: https://www.debian.org/CD/http-ftp/ (This is a cd/network install I choose to avoid changing my server bios setup but there are also disk on key install, etc). You need to connect your server to the internet to update and complete properly this installation.
2. Boot the server on the volume just created and select the installer. I used the live one but there is also a graphical install providing a more user-friendly experience.
3. Set language, keyboard (suggested to keep all in English/US) and your location.
4. Configure hostname and domain (you can change them later)
5. Create root and first user account.
6. Partition disk (Guided – use entire disk is the easiest choice), follow the guide there is recommendations for new users). At the end of the process write the changes to the disk to validate.
7. Select a mirror, at some point you'll be asked to connect to a Debian mirror online selecting one close to your server location.
8. Select your package, I selected the minimum: web server, SSH server, Standard system utilities
9. Install GRUB boot loader (follow the 2 screen recommendation and default selection)

Remove your Debian install volume (CD or USB disk) and reboot
You should be able to login using you newly created user (and to switch to root if needed: su)

Most of what you need is installed with the Web server package. There is a little to complete the installation and have a server and a Tiki online.

Complete the installation

Update your Debian server

Check everything is up to date
Log onto your server and first update/upgrade it with the following commands:

```
sudo apt update
sudo apt upgrade
```

Install mariadb

```
sudo apt install mariadb-server
sudo mysql_secure_installation
sudo systemctl status mariadb
```
Optional

While you will be able to run and complete the server setup and publish a website (a Tiki you need a lot more to assure your data protection and create the necessary services to manage easily your server, users, mailboxes, etc. There are control panel and addition that really help and set for you all the needed tools to administrate a server with several websites (virtual servers).

Install Webmin and Virtualmin

Download Virtualmin using the below script. It is basically a shell script that will handle rest of the installation once executed.
Then run it

```
wget https://software.virtualmin.com/gpl/scripts/install.sh
sudo /bin/sh ./install.sh
```

You have now to set your Webmin password (don’t use the letter & ?).

```
sudo /usr/share/webmin/changepass.pl /etc/webmin root yourpassword
```

Restart webmin.

```
sudo systemctl restart webmin
```

You will now have access to your control panel if the port 10000 is open else, you may need to open the port it on the server. Because by default the Virtualmin will listen to the port Virtualmin. You only have to open this port if all the incoming requests on your server are blocked by default. (this is done using the security group on AWS)

Use `https://your_server_domain:10000` (you can use your server IP too)
Once you are in, follow Virtualmin Post installation wizard.
It is pretty straightforward and everything is done to guide you.

Install several versions of PHP

Debian 10 come by default with 7.0 and installing MariaDB will add PHP7.4. You may want to use in parallel other PHP versions (you can select for each of your virtual server the PHP version).

Enable the sury.org repository and update the package list:

```
apt install apt-transport-https lsb-release ca-certificates
wget -O /etc/apt/trusted.gpg.d/php.gpg https://packages.sury.org/php/apt.gpg
echo "deb https://packages.sury.org/php/ $(lsb_release -sc) main" > /etc/apt/sources.list.d/php.list
apt update
```

From here you can install any PHP package (change version number for what you need) and it will be accessible for your PHP version configuration in Virtualmin

```
sudo apt-get install php7.2 php7.2-cgi php7.2-cli php7.2-fpm php7.2-mysql php7.2-xml php7.2-gd php7.2-intl php7.2-xsl php7.2-curl php7.2-zip php7.2-mbstring
```
Sidenotes: On another server installed from scratch, after applying the above, I had to delete manually files starting with "ondrej-" at /etc/apt/sources.list.d to be able to install any php version.

Another side-note: when I used this php package list to install php 7.4 (see below) it was missing php7.x-mysql which I had to add to avoid it using AdoDB (and breaking).

Once I completed the installation of the second PHP recheck the Virtualmin configuration it by logging into Virtualmin, and clicking System Settings -> Re-Check Config.

You can configure which one is the default PHP version used on new Virtual Servers. The default is to use the newest available. You can change that default in System Settings -> Server Templates -> Default -> PHP Options. To set your host or domain PHP version go to Virtualmin -> Server configuration -> PHP version and on that screen you can set the PHP version to use version.

PHP 7.4

To add php 7.4 i used the virtualmin System -> Software Packages page and pasted this into the "Package from APT" box:

```
php7.4 php7.4-cgi php7.4-cli php7.4-fpm php7.4-mysql php7.4-xml php7.4-gd php7.4-intl php7.4-xsl php7.4-curl php7.4-zip php7.4-.mbstring php7.4-mysql php7.4-bcmath
```

### Installing git

Install and check git is running

```
sudo apt install git
git --version
```

### Installing Tiki from Git

Navigate into your html directory. If you don’t know where it is located on your new server on Virtualmin check the Virtual Server Summary.

There, enter the git clone command. In my case I needed Tiki branch (version) 21.x without previous history.
Follow the regular Tiki install process (setup.sh (see additional notes below), database creation) and you’ll have a Tiki ready to be installed!

**Additional notes to install composer and the dependencies**

The composer installation from setup.sh check and requires some packages and libraries

- curl must be installed `apt install curl`
- The extension ext-gd must be installed for your php version `apt-get install php7.4-gd`
- The extension ext-intl must be installed for your php version `apt-get install php7.4-intl`
  - Also the xls package for your php version `apt-get install php7.4-xsl`
- The extension ext-curl must be installed for your php version `apt-get install php7.4-curl`
- The extension ext-zip must be installed for your php version `apt-get install php7.4-zip`
- The extension ext-bcmath must be installed `apt-get install php7.4-bcmath`
- Restart apache2 `systemctl restart apache2`

previous guide for Sarge