

Pre-requisites to install Linux operating system

This document will guide you through installing Hanthana Linux 17 DVD.

Hardware of your computer

- For text mode : 200 MHz Pentium Pro processor recommended
- For graphical mode : 400 MHz Pentium Pro or higher processor recommended
- For text mode : 256 MiB RAM minimum
- For graphical mode : 640 MiB RAM minimum
- For graphical mode : 1152 MiB RAM recommended
- Minimum free space on the hard disk : 15GB
- A DVD drive

Obtaining a Hanthana Linux DVD copy

You may visit <http://www.hanthana.org>, download the DVD iso and burn it to a DVD (make it a bootable DVD) or you may get a copy from someone who has already done so.

Data Backup

We recommend you to backup your valuable data in case you intend to install Hanthana Linux on your computer.

Configuring your computer to first boot with DVD

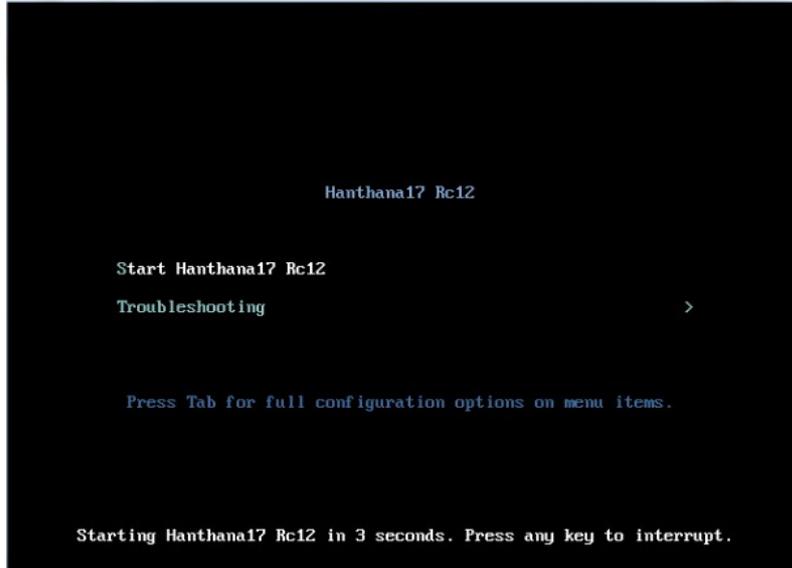
Enter in to the BIOS settings of your computer, set your DVD drive as the first boot device, save and exit. Or else you may use the option to select from which device to boot the computer at startup if your computer provide that feature.

Now you are ready to install Hanthana Linux

Since the installtion of Hanthana Linux is done through a DVD there may be some time delay (time required to read the DVD and depends on the hardware of the computer) in proceeding from one step to the next. Please remain patient until the next step is loaded and act according to the instructions there so to that you may continue with the installtion without any issues.

Booting the computer

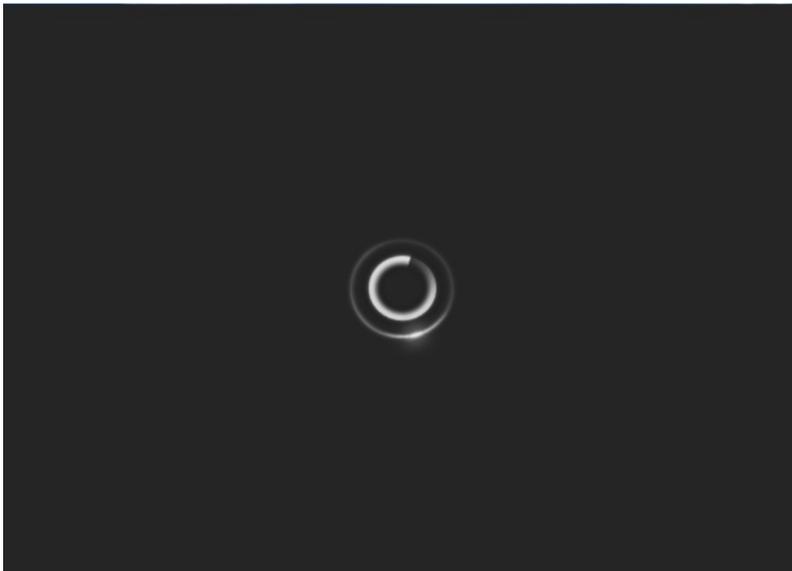
Boot your computer with Hanthana Linux DVD. You will get a screen similar to the following.



Select "Start Hanthana 17 Rc12" and press Enter key.

If you do not press any key, Hanthana Linux will be booted automatically after 3 seconds.

When you select to start Hanthana Linux, you will get a screen with the progress of booting.



Installing or proceeding to the desktop of Hanthana Linux

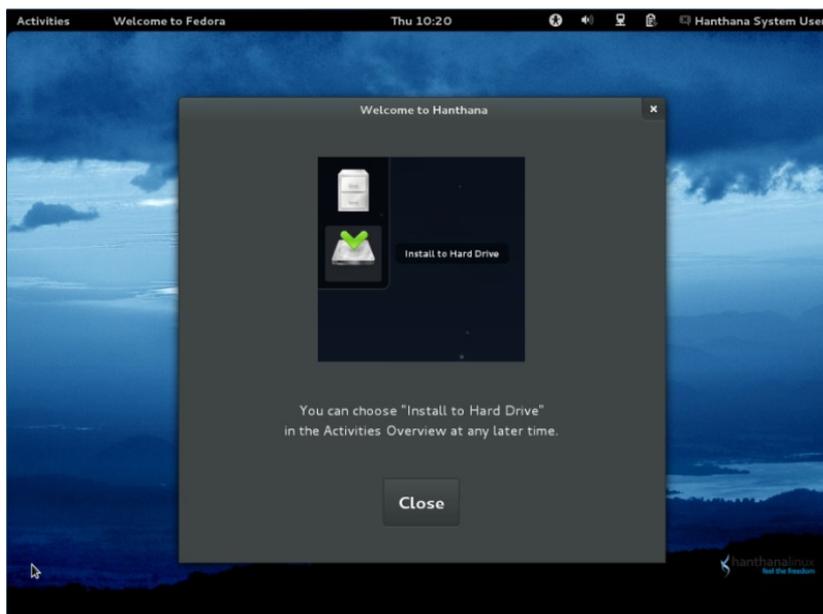


To enter Hanthana Linux with the Live DVD, click on the option "Try Hanthana Linux".

Then you can use Hanthana Linux without installing it in your computer. We recommend you to use Hanthana Linux in that way if you are new to Linux based operating systems.

To install click on the option “Install to Hard Drive”.

Let's proceed to the desktop with "Try Hanthana Linux" option. You will get the following screen.

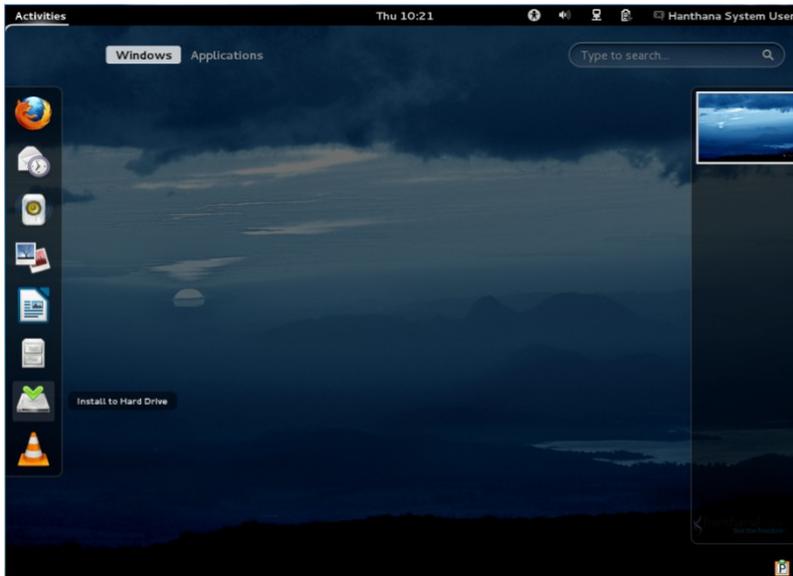


This screen will show you the “Install to Hard Drive” icon that should be used in the desktop to install Hanthana Linux. Closing this window will enable you to enter Hanthana Linux desktop.

Entering Hanthana Linux desktop

After you enter Hanthana Linux desktop, you may use the computer as usual if you wish.

If you want to install afterwards, click on "Activities" and use "Install to Hard Drive" icon. Refer the following screen shot.

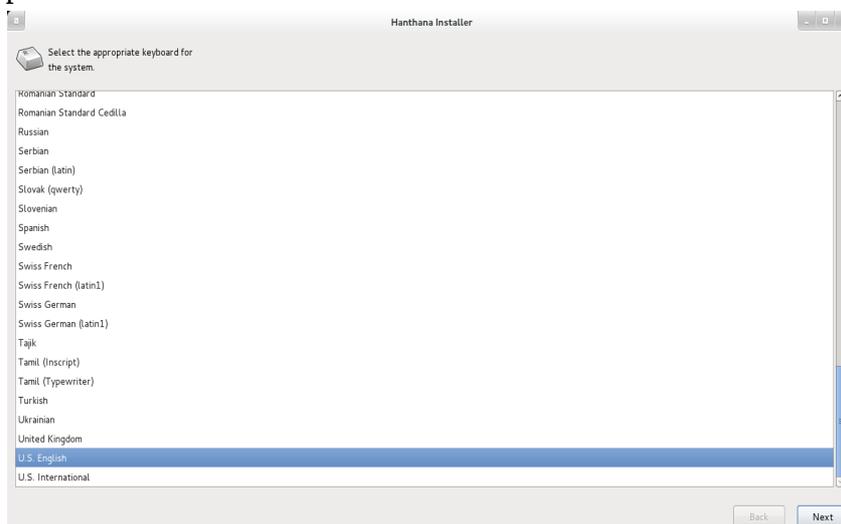


Installing Hanthana Linux

Click on "Install to Hard Drive" icon as illustrated in the above screen shot and let's proceed with the installation.

Selecting the keyboard layout

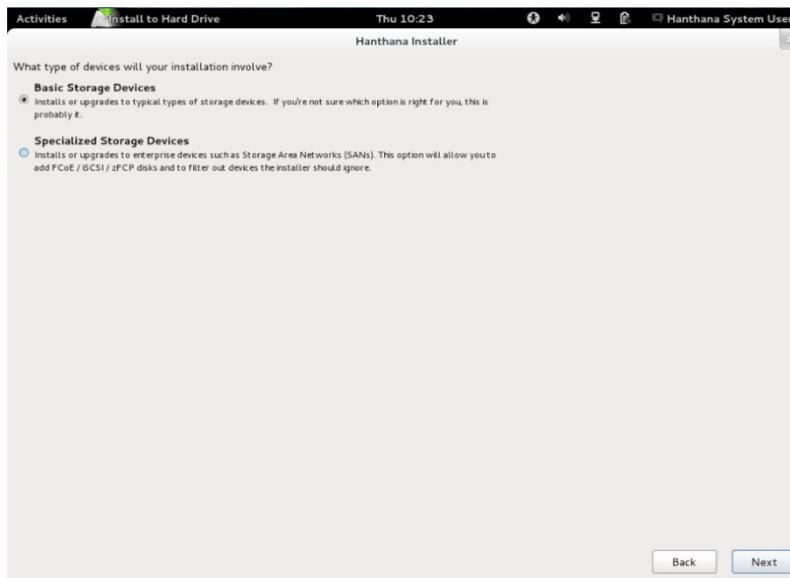
The next window will let you select your keyboard layout. The default is "U.S. English". If your keyboard layout differs from the default you may select yours from the list. If you have no idea about this, you may keep it as it is.



Selecting devices to install

This window queries about the type of device you wish to use for the installation. Since you are installing to a hard disk, keep the default option "Basic Storage Devices" as it is.

Since special devices are not used in domestic or school environment, proceeding with the "Basic Storage Devices" is sufficient. If you are not sure whether this kind of special devices are used in your office, please contact the IT personal of your company.

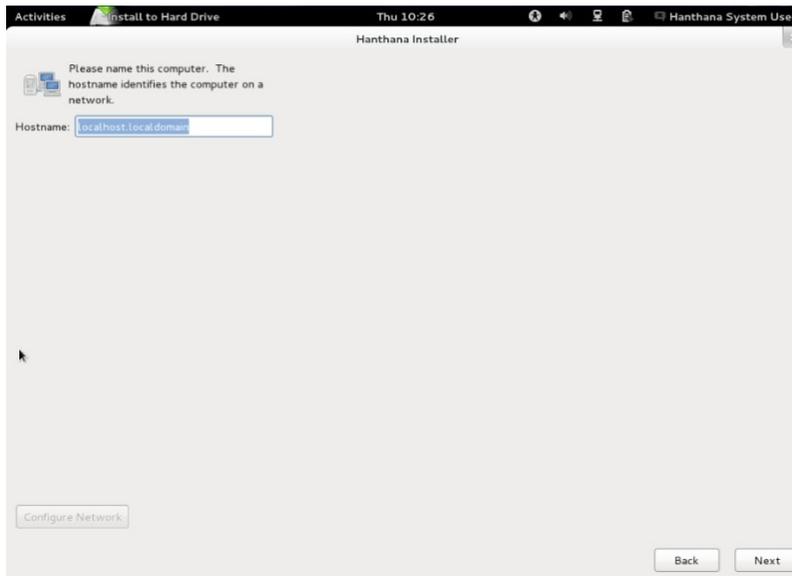


Click on "Next" button. You will get the following window, be patient.

Hostname

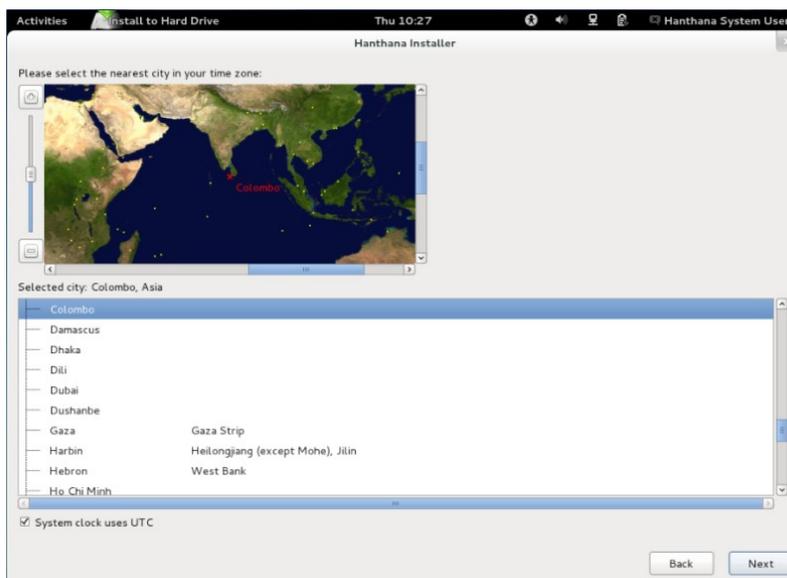
In this window you can enter a name for your computer so that it can be easily identified in a network. If your computer is not connected to a network you may use the default, "localhost.localdomain". If you are installing in a school computer lab, using a short name for the school along with an index number as the host name will be easy for you. Ex: dc01, dc02. If the school or company has an internet domain that also can be added to the host name. Ex: if the domain of the school is dc.schnet.lk and the identification number of the computer is dc01, you may use "dc01.dc.schnet.lk" as the hostname.

Click "Next" button.



Selecting the time zone

Select your time zone. You may either click on your country in the map or select the time zone from the drop down menu. For Sri Lankan, this is "Asia/Colombo".

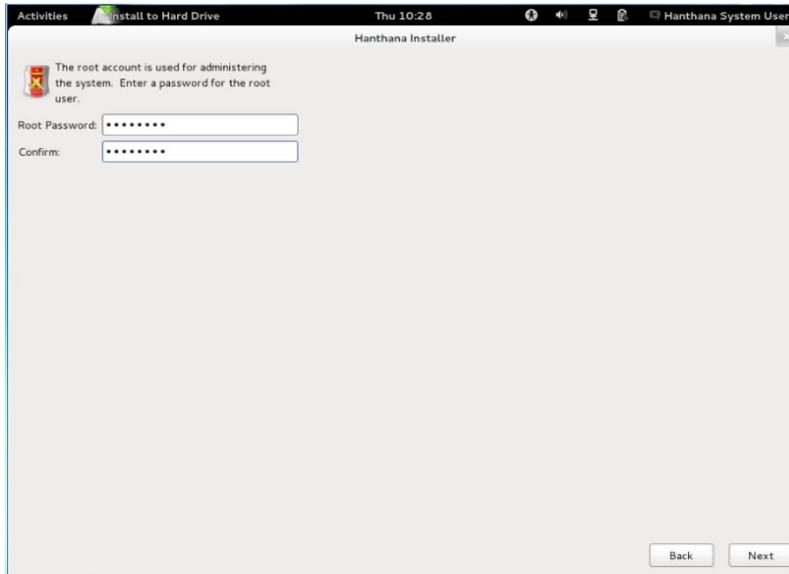


Click "Next" button.

root user

You will need special permission to perform certain tasks using your computer. This special root account will be needed for tasks such as adding, editing or deleting a user, configuring network settings.

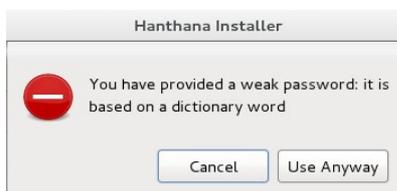
This window will let you enter a password for this special user account, root. Please enter the same password in both the text boxes provided. Don't forget the password that you provide here.



Click "Next" button.

If the password you entered is weak, you will get a message as the following.

Ex: when you provide simple passwords such as abc123, kamal123, hanthana123

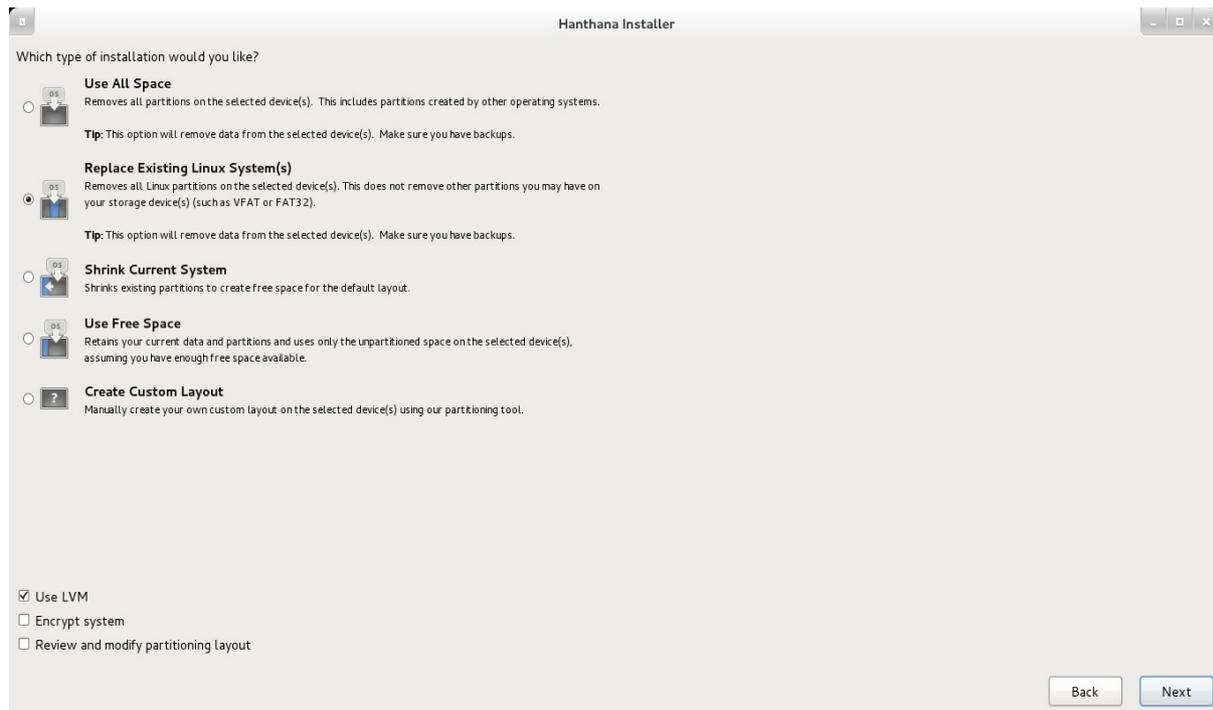


You may enter another password by pressing "Cancel" or you may proceed with the entered password by pressing "Use Anyway".

Selecting the type of installation

This window will list the available installation options. You may select an option as you wish but before you do so please read the description below each option and be cautious about your selection.

For example, if you select "Use All Space" all data in your hard disk will be erased.



Use All Space

This is automatically use all the space in your hard disk to install Hanthana Linux. With this option your current operating system and all data will be erased and the hard disk will be formatted. Please make sure that your data is secure (backed up) before you proceed with this option.

Replace Existing Linux System(s)

If your computer is installed with a Linux based operating system already, that system will be replaced and the space that was allocated for the current linux based operating system will be utilized for Hanthana Linux. Space on other file systems such as VFAT/FAT32/NTFS, used for other operating systems like Microsoft Windows will not be utilized here. If you already have a linux based operating system installed in your computer and if you find it difficult to partition your hard disk, this option may be helpful.

Shrink Current System

Current partitions with data will be shrunk and the free space will be formatted with a pre defined format layout.

Please note : If you resize the partition that holds your current operating system, the current operating system may not work properly. In general, some free space is needed in the disk for the

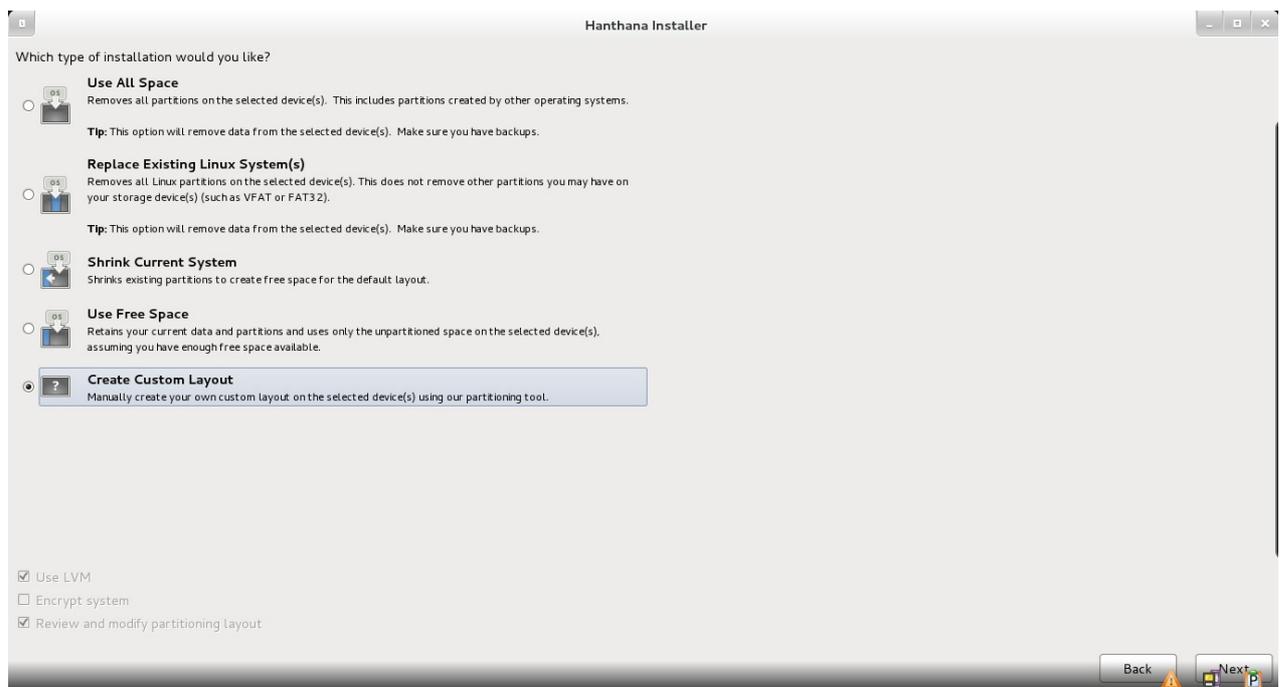
operating system to function properly. Therefore pay attention to the free space required before shrinking the partitions having operating systems. However with this option, there will not be any data loss.

For example, if your hard disk capacity is 100GB and let's assume you want to allocate 30GB for Hanthana Linux. Select "Shrink Current System" option and click "Next" button. In the window that appear, enter 70000 (approximate to 7GB in MB) as "Shrink Partition to size (in MB)". Then your hard disk will be rearranged in such a way that 30GB will be allocated for Hanthana Linux installation and the rest 70GB will be your data.

Use Free Space

With this option your current partitions and data will not be affected and the free space will be used to install Hanthana Linux. Before selecting this option please make sure that sufficient space to install Hanthana Linux is available in your hard disk.

Create Custom Layout



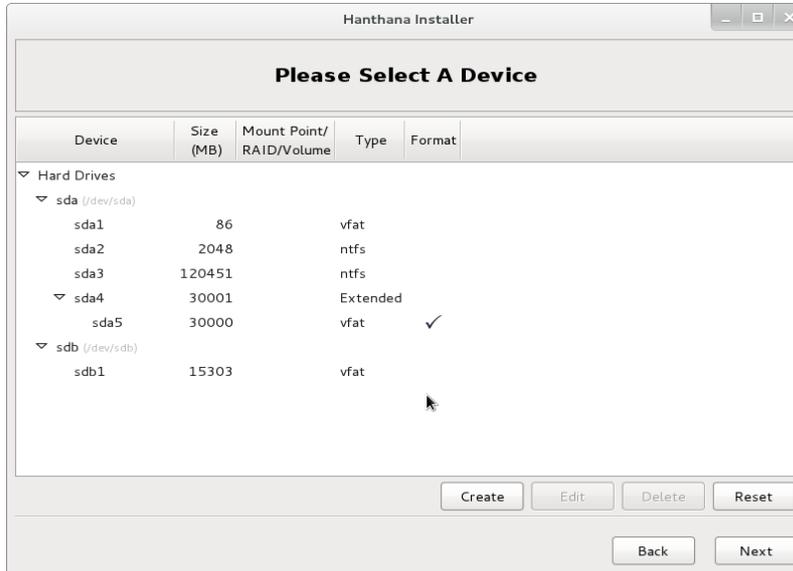
This option can be used to install the system the way we wish.

Let's consider the installation using "Create Custom Layout" option. This option provides you with the best opportunity to decide by yourself on how the installation should be done.

Click "Next" button.

Partitioning

Next window will show your hard disks and their partitions. You may resize, delete and create partitions as you wish.



The window that appear at your computer may not be the same as above. Data in the table may differ from one computer to another.

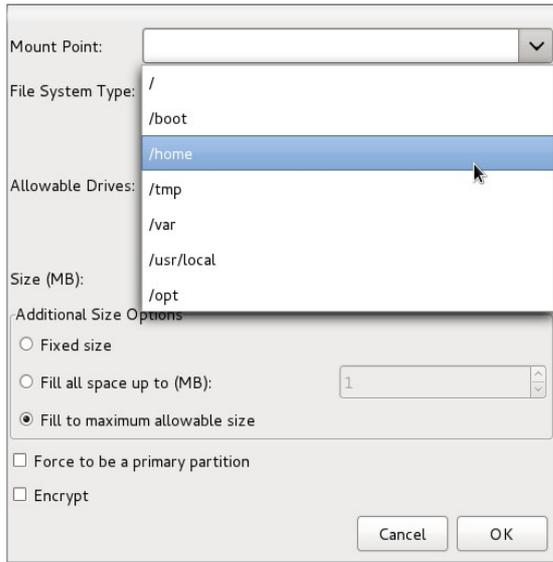
In the above screen shot vfat partitions are FAT32 partitions while ntfs partitions are NTFS partitions.

Let's consider creating new partitions to install Hanthana Linux in your computer. Select a partition with free space in your hard disk and press "Create" button. You will get a window as the following.

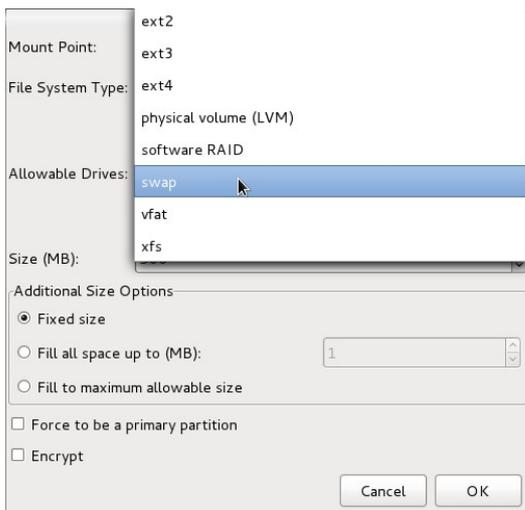


Under "Create partition", select "Standard Partition" and press "Create" button. You will get a window as the following.

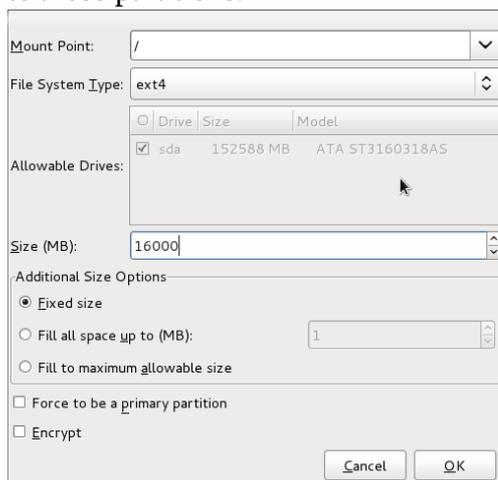
As illustrated in the image below, you may select desired mount points from the drop down menu.



Similarly you may select the file system from the File System Type drop down menu.



You can specify the Mount point, File System Type, partition size etc. and create the partition. It is suitable to create partitions as the follows to install Hanthana Linux. Reapply the above steps to create those partitions.



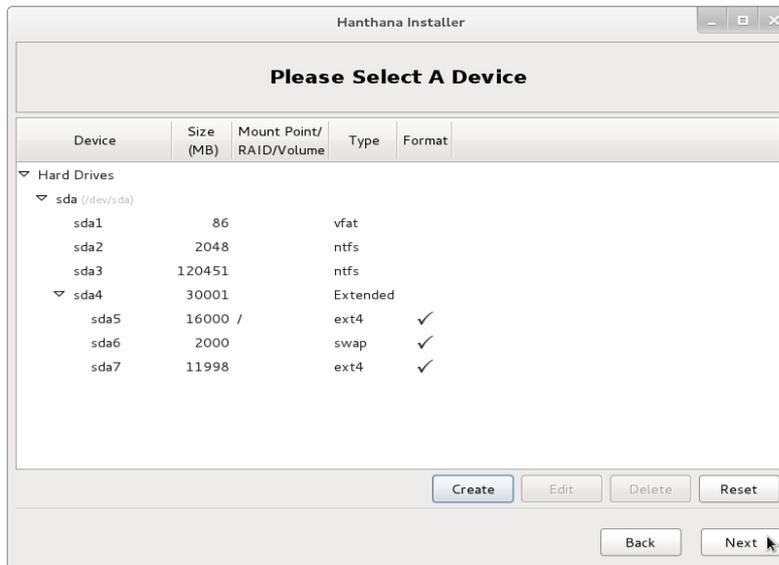
Partitions to be created in installing Hanthana Linux and the use of those partitions.

Mount point	File System Type	Size	Description
/	ext4	About 15GE	This partition is compulsory. Although a small space like 6GB is sufficient you may get issues due to lack of free space later when you are installing additional applications. Therefore allocating a minimum of 15GB is suitable. But it is recommended to allocate a disk space of more than 16GB.
/boot	ext4	500MB	This partition is not compulsory. This will actually use only 30M, but in the case of system upgrade having more space in this partition will make sure that the system is upgraded with no issues. However allocating a space more than 500MB is not necessary. The remaining space on this partition cannot be used for your personal use.
Not applicable	swap	1GB	This partition allows you to use a part of your hard disk as the RAM in cases where your RAM is not sufficient. If your RAM is less than 1GB, it is customary to allocate a twice the capacity of your RAM to this partition. Any space on this partition cannot be used for your personal use. But if your RAM is 2GB, create a swap partition of 2GB.
/home	ext4	As much as required	This partition is not compulsory. This is used to store user data. Therefore a space that you wish can be allocated for this. Advantages of creating a separate partition as /home is that you can keep your user data when you change the system to another or in an upgrade and the user preferences can be used as they are (most of the time). If you have many files such as documents, mp3 files, movies, allocate space that is sufficient to store them.

If you do not create the above mentioned /boot and /home partitions explicitly, they will be created automatically in / partition. Further, if your computer has an already installed operating systems, file systems created by that operating system will also be visible. Ex: file systems used for Microsoft Windows will be displayed as vfat.

The first hard disk of your computer will be displayed as /dev/sda or /dev/hda. If you have two hard disks, the other will be displayed as /dev/sdb or /dev/hdb. If the first disk has three partitions, they will be displayed as /dev/sda1, /dev/sda2, /dev/sda3 or /dev/hda1, /dev/hda2, /dev/hda3 respectively. hda or sda means; "h" for IDE devices and "s" for SATA/SCSI devices.

Proper partitioning will get you a window similar to the one below.



The partitions with a tick under format column will be formatted in the next step and any data there will be erased. Therefore please make sure whether any partition that you do not intend to format is marked for formatting by mistake.

Click "Next" button. You will get a warning as follows. This will show you the devices marked for formatting. If there is any issue you can click "Cancel" and return to the previous window.

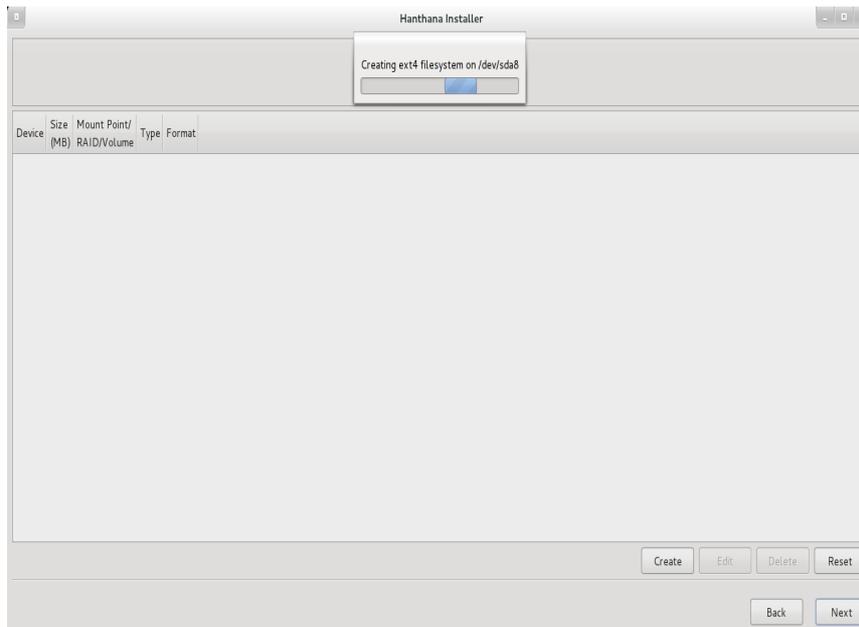
If the information displayed is correct, press "Format" button. You will be asked for confirmation as follows.



This allows you to reconsider your partitions that were marked for modification. If there is any problem correct it by clicking "Go Back" button. If not click "Write Changes to disk" button.

Please note that from this point onwards, any changes that you marked to be done to your partition table, cannot be undone.

Then you will get a window showing the status of your preparation of your partitions suitable to install Hanthana Linux.

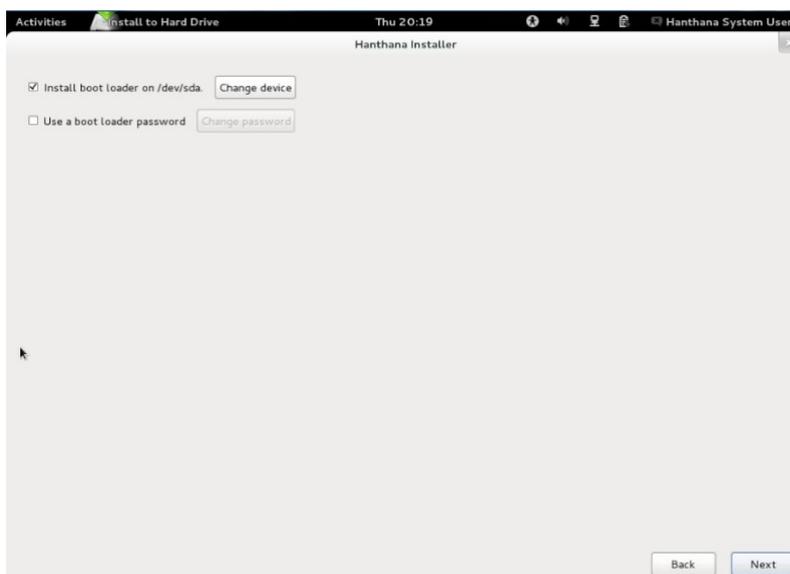


Booting operating system

From this window you can specify which operating system to boot by default when your computer is turned on. This is not applicable if your computer doesn't have any operating system installed already. But if you have an operating system already installed, it will be identified here and will allow you to select the operating system that the computer should boot by default. You can specify the display name of the operating system by selecting it and pressing "Edit" button.

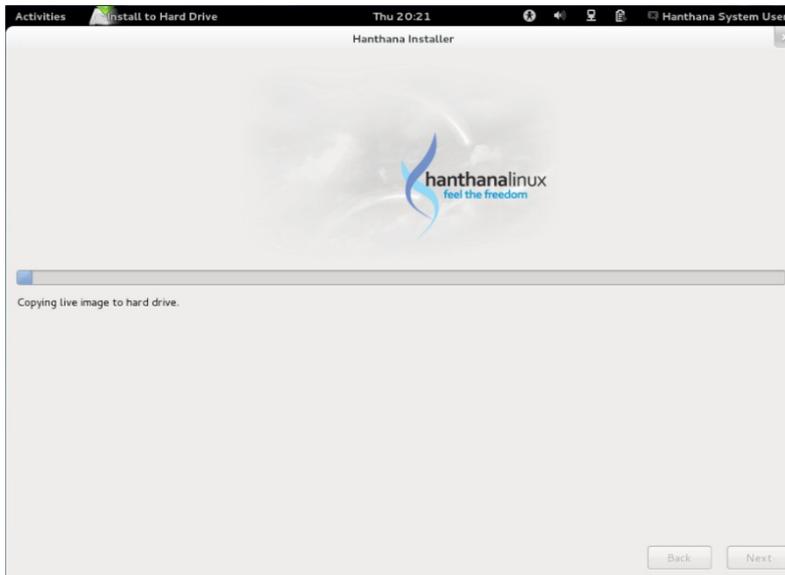
For example if your computer is already installed with Windows XP operating system, Hanthana Linux installer will identify it. But it will be labelled as "Other". If you want to rename it with Windows XP (or any other label) select the row, click "Edit" button and enter the desired name.

Operating system under "Default" will be the one that the computer will boot with automatically.



Click "Next" button.

Now you will be presented with a window displaying the progress of Hanthana Linux installation. This may take some time (that time depends on the hardware specification of your computer). Therefore remain patient. In general this time will be 30 minutes or less.



After that the Filesystem will be created as illustrated in the image below,

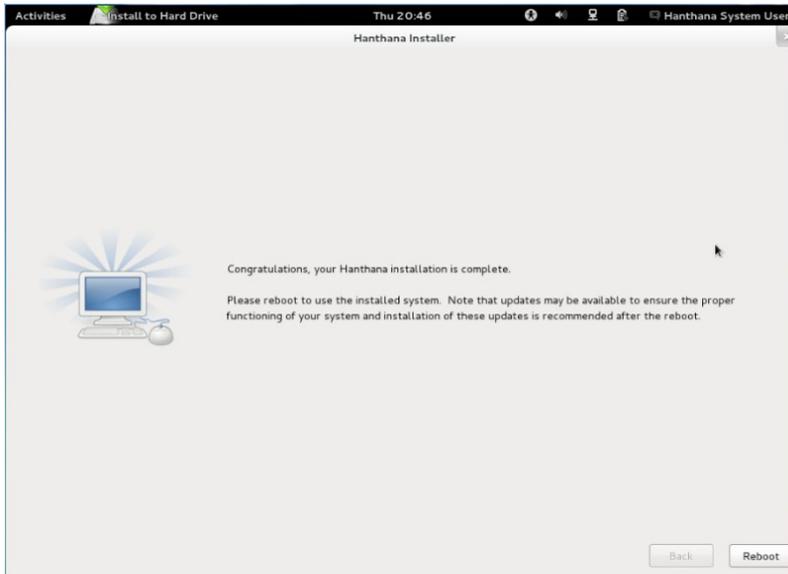


the bootloader will be installed as in the next screen shot. This will take some time.



After this a window with the message that the installation was successful will be displayed.

Click on "Reboot" and reboot the computer.

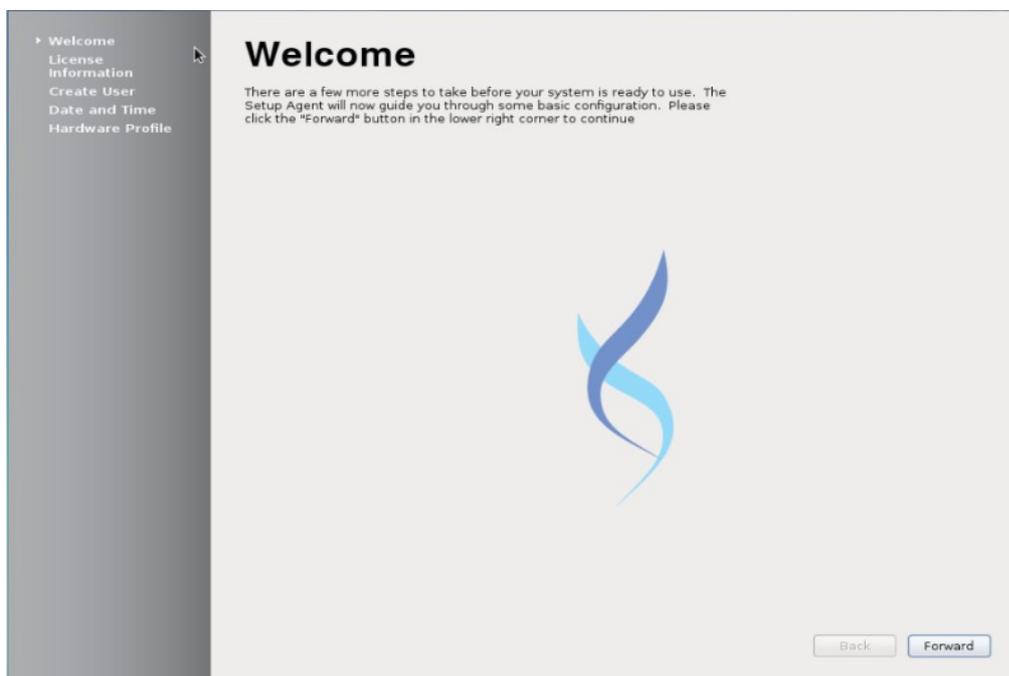


Congratulations!

You have successfully completed installing Hanthana Linux operating system in your computer.

Rebooting the computer

Remove the live disk used for the installation and reboot the computer. A window like the one below will appear.



Click "Forward" button.

License information

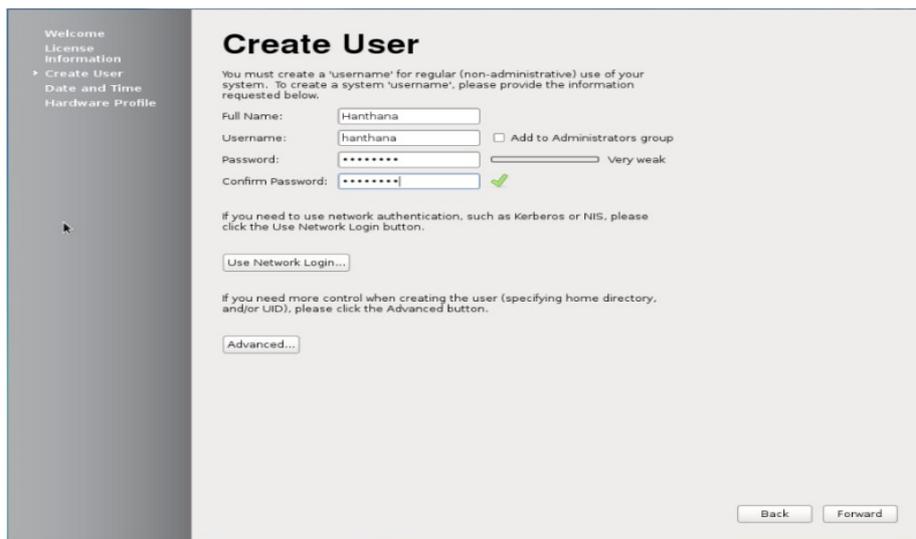
Next the window containing the license information will be displayed.



Click "Forward" button.

Creating a new user

Create a new user here.



This allows you to create a new user account. It will be easy not to use capital letters for username. Please note to enter the same password in both the text boxes provided. Don't forget the password you provided.

Refer the following example in creating a new user account:

Username: sirimal

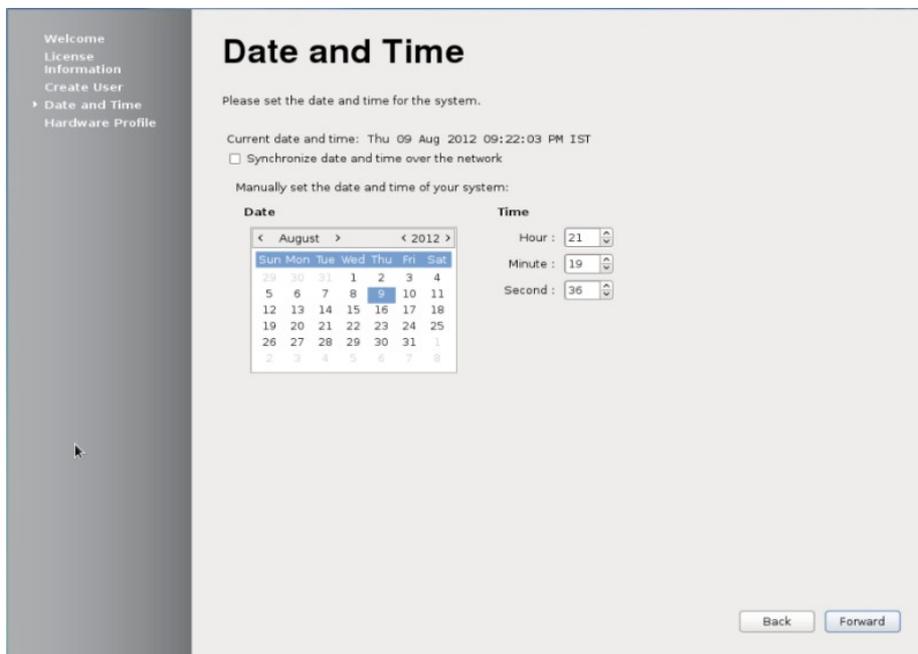
Full Name: Sirimal Ahinsaka

Password: don't use your username as the password in public places such as a company.

After you enter correct information click "Forward" button.

Date and time

Adjust the date and time here.

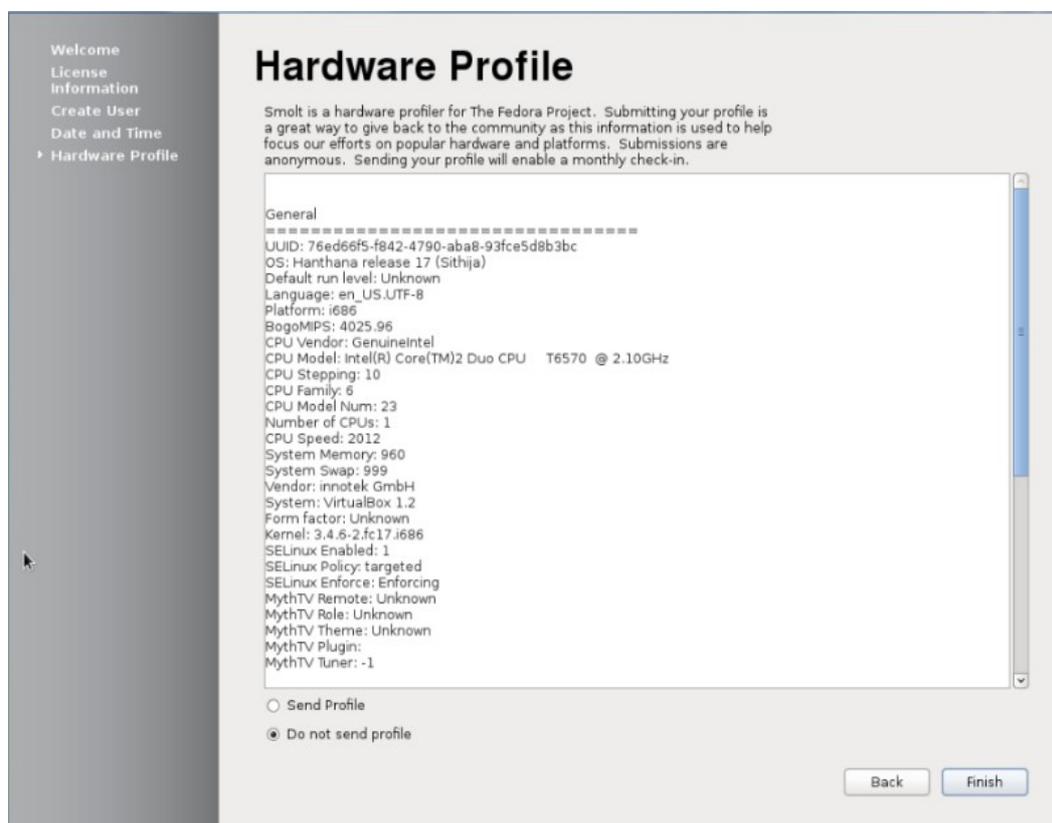


Click "Forward" button.

Hardware profile

Here the hardware profile of your computer will be displayed. You will be requested whether you wish to send this information as an aid for the future development of the operating system. You need an internet connection to send these information. You can choose an option you wish, "Send profile" or "Do not send profile".

Considering the facts that providing this information will allow the Hanthana Linux developers to get an idea about its usage and those can be used for the further development of the operating system, the developers of Hanthana Linux believes that you will contribute to the future development of the operating system be sending those information. Therefore if you have an internet connection when you are installing please be kind to select "Send profile" option.



Select "Send profile" and click "Finish" button.

Here not your personal information, but the system information will be sent to the smolt server on a monthly. This will have no harm on you and when the computer is connected to internet, informations such as CPU and RAM will be obtained automatically. Those information will be displayed on your computer as illustrated in the screen shot above. The sole purpose is to get an idea for the developers on the hardware that the users use and that will help for the further development of the operating system.

If you do not contribute to this, click "No, do not send." button.



Next you will be allowed to enter to Hanthana Linux system that you installed.

Provide your password and enter the system.

Feel the freedom.....



Welcome to Hanthana Linux !

Please be kind enough to forward your comments and suggestions on Hanthana Linux to info@hanthana.org

Solutions for frequently asked questions can be obtained by reading the H17-FAQ-English document in Desktop-Guide-and-FAQ directory and a guide on using Gnome desktop environment in documented in Gnome3-Desktop-Guide file. Further, keyboard layouts for Sayura, Wijesekara and Tamil are also included.

You will be able to resolve any issues with by joining **Hanthana Linux User Group**, <http://groups.google.com/group/hanthana-community>. Before you send emails to the group, please join the group. Use hanthana-community@googlegroups.com email address to send emails to the group.