

BOSS GNU/Linux User Manual

Table of Contents

1 Introduction.....	6
1.1 What is BOSS GNU/Linux?.....	6
1.1.1 INSTALL.....	6
1.1.2 BOSS Live.....	7
1.1.3 BOSS GNU/Linux Components.....	7
1.2 BOSS GNU/Linux Licensing.....	8
1.2.1 The BOSS Free & Open Source Software Guidelines.....	9
2 Installation Steps.....	11
2.1 Before You Begin.....	11
2.1.1 System Requirements.....	11
2.1.2 Overview of the Installation Process.....	11
2.1.3 Back Up Your Existing Data!.....	13
2.2 Beginning the Installation.....	13
2.3 Language Selection.....	14
2.4 Country Selection.....	15
2.5 Keyboard Configuration.....	16
2.6 Network Configuration.....	16
2.7 Disk Partitioning Setup.....	19
2.8 Installing the Base System.....	51
2.9 Create User Account.....	51
2.10 GRUB Installation.....	54
3 GNOME Desktop.....	56
3.1 Logging In and Selecting a Desktop.....	56
3.1.1 Locking Your Screen.....	56
3.2 Logging Out.....	56
3.3 Desktop Components.....	57
3.3.1 Desktop Icons.....	57
3.3.2 Panel.....	58
3.4 Handling Removable Media.....	59
3.4.1 Removing Media Safely.....	59
3.5 Managing Trash.....	60
3.6 Managing Folders and Files with Nautilus.....	60
3.6.1 File Manager Functionality.....	60
3.6.2 File Manager Presentation.....	61
3.6.3 File Browser Window Components.....	62
3.6.4 Searching For Files.....	64
3.6.5 Using Views to Display Your Files and Folders.....	66
3.6.6 Moving a File or Folder.....	66
3.6.7 Copying a File or Folder.....	66
3.6.8 Duplicating a File or Folder.....	67
3.6.9 Creating a Folder.....	67
3.6.10 Renaming a File or Folder.....	68

3.6.11 Moving a File or Folder to Trash.....	68
3.6.12 Deleting a File or Folder.....	68
3.6.13 Creating a Symbolic Link to a File or Folder.....	69
3.6.14 File Permissions.....	69
3.6.15 Changing Permissions.....	70
3.6.16 Writing CDs or DVDs.....	71
3.6.17 Accessing a Remote Server.....	72
3.7 Finding Data on your Computer.....	73
3.7.1 To Perform a Basic Search.....	73
3.7.2 To Add Search Options.....	74
3.7.3 To Stop a Search.....	74
3.7.4 To Open a Displayed File.....	74
3.7.5 To Delete a Displayed File.....	74
3.7.6 To Save the Search Results.....	74
4 Customizing Desktop Settings.....	75
4.1 Changing Individual Desktop Elements.....	75
4.1.1 Creating New Desktop Objects.....	75
4.2 Changing the Desktop Settings.....	75
4.2.1 Changing the Desktop Background.....	75
4.2.2 Changing the Desktop Font.....	77
4.2.3 Changing the Desktop Theme.....	77
5 Linux Basics with BOSS GNU/Linux.....	79
5.1 Opening a Shell Prompt.....	79
5.2 Create a New User.....	80
5.3 Documentation for Linux Commands.....	81
6 Networking.....	82
6.1 Networking through Ethernet.....	82
6.2 Setting up Dial-up connection in BOSS.....	83
6.2.1 Configuring a Dial-Up Connection using wvdial & wvdialconf.....	83
6.3 Setting up Broadband Internet connection in BOSS.....	84
6.4 Wireless Connection.....	85
7 Hardware Configurations.....	87
7.1 Printers.....	87
7.2 USB.....	92
7.3 Webcam, Digital Camera.....	92
7.4 Bluetooth Support.....	93
8 LibreOffice.....	94
8.1 The LibreOffice Application Modules.....	94
8.2 Word Processing with Writer.....	94
8.3 Using Spreadsheets with Calc.....	96
8.4 Using Presentations with Impress.....	98
8.5 Using Databases with Base.....	100
9 Intelligent Input Bus (IBus).....	104
9.1 IBus.....	104

9.2 OnScreen Keyboard.....	107
10 Internet.....	110
10.1 Browsing with Firefox.....	110
10.1.1 Tabbed Browsing.....	110
10.1.2 Using the Sidebar.....	111
10.1.3 Finding Information.....	111
10.1.3.1 Finding Information on the Web.....	111
10.1.3.2 Searching in the Current Page.....	111
10.1.4 Managing Bookmarks.....	112
10.1.4.1 Using the Bookmark Manager.....	112
10.1.4.2 Importing Bookmarks from Other Browsers.....	112
10.1.4.3 Live Bookmarks.....	112
10.1.5 Using the Download Manager.....	113
10.1.6 Adding Smart Keywords to Your Online Searches.....	113
10.1.7 Printing from Firefox.....	114
10.2 Mail Client.....	114
10.2.1 Evolution.....	114
10.3 Empathy.....	120
10.4 Polari.....	122
10.5 Dictionary.....	125
11 Graphics.....	131
11.1 GIMP.....	131
11.1.1 Toolbox.....	134
11.1.2 Image Window.....	135
11.2 Shotwell.....	137
11.2.1 Organizing your photos.....	137
11.2.2 Enjoying your photos.....	140
11.2.3 Sharing your photos.....	141
11.3 Scanner Usage.....	141
12 Special Purpose Tools.....	143
12.1 Migration Tool.....	143
12.2 BOSS Presentation Tool.....	146
13 Playing Music and Movies.....	155
13.1 Banshee Music Player.....	155
13.1.1 Importing Music.....	155
13.1.2 Podcasts.....	155
13.1.3 Playing Audio CDs.....	156
13.1.4 Importing/Ripping Audio CDs.....	156
13.2 Movie Player.....	157
13.2.1 Opening a File.....	158
13.2.2 Opening a Location.....	158
13.2.3 Play a Movie (DVD or CD).....	158
13.2.4 Eject a DVD or CD.....	158
13.2.5 Pause a Movie or Song.....	158

13.2.6 View Properties of a Movie or Song.....	159
13.2.7 Adjusting the Volume.....	159
13.2.8 Make Window Always On Top.....	159
13.2.9 Repeat Mode.....	160
13.2.10 Shuffle Mode.....	160
13.2.11 PlayList.....	160
13.3 Restricted Formats.....	160
14 Burning CDs and DVDs.....	162
14.1 Creating a Data CD or DVD.....	162
14.2 Creating an Audio CD.....	163
14.3 Copying a Data CD or DVD.....	164
14.4 Blank a CD-RW.....	165
14.5 Burn an ISO Image.....	165
15 Partition Editor.....	166
16 Utilities.....	168
16.1 Document Viewer.....	168
16.2 Image Viewer.....	170
16.2.1 Sort Images.....	171
16.2.2 To Add a Folder to the Bookmarks.....	171
16.2.3 Viewing Images.....	171
16.2.4 Viewing the Image Properties.....	172
16.2.5 To View the Image EXIF Data.....	172
16.2.6 Comments.....	172
16.2.7 Catalogs.....	173
16.2.8 Slide Show.....	174
17 Changing the name of Applications in BOSS.....	176
17.1 Changing the name of main menu.....	176
17.2 Changing the name of sub menu.....	178
18 How to install ANYTHING in BOSS !!.....	180
18.1 Synaptic Package Manager.....	180
18.2 Where is my Binary File ?.....	183
19 About BOSS Live.....	184
20 Troubleshooting BOSS GNU/Linux.....	185
20.1 Forgotten User Password.....	185
20.2 Error Messages during installation of deb packages.....	186
21 Conclusion.....	187
21.1 About CDAC.....	187
21.2 About NRCFOSS.....	188
21.3 Contact Us.....	188
21.4 BOSS Support Centres.....	189

1 Introduction

We are delighted that you have decided to try BOSS GNU/Linux, and are sure that you will find that BOSS GNU/Linux distribution is unique. BOSS GNU/Linux brings together high-quality free software from around the world, integrating it into a coherent whole. We believe that you will find that the result is truly more than the sum of the parts. We understand that many of you want to install BOSS GNU/Linux without reading this manual, and the Debian Installer is designed to make this possible.

1.1 What is BOSS GNU/Linux?

BOSS comes with a set of features which are relevant to primary and secondary school environment. BOSS is a GNU/Linux distribution, developed by C-DAC, to provide a complete usable Operating System consisting of GUIs and console applications for routine tasks and additional utilities which are useful for teaching/learning in schools.

BOSS DVD pack consists of 3 sections. The Install section which gives you a BOSS Desktop in your system, a Live section which allows you to try BOSS without installing on the Hard Disk and without disturbing your existing OS and the Utility section which has some of the extra packages like libreoffice, Apache web server, scripting languages etc. You can get more details about BOSS DVDs and their functionality in our website <http://www.bosslinux.in>

1.1.1 INSTALL

To install BOSS , you need to have a minimum of 10.0 GB of hard disk space, 512 MB of RAM and a DVD-ROM drive. Insert the BOSS GNU/Linux DVD into the drive, restart your computer and boot from DVD by editing the BIOS setup. The BOSS screen appears with three options:

- 1) Start BOSS Live
- 2) Install BOSS-Graphical
- 3) Install BOSS-Text Mode

To use BOSS Live select the “*Start BOSS Live*” option.

You can proceed with the default installation by clicking “*Install BOSS-Graphical*” or “*Install BOSS-Text Mode*”. The details about the installation options and screen shots can also be found at BOSS GNU/Linux website <http://www.bosslinux.in>.

1.1.2 BOSS Live

BOSS Live is a GNU/Linux distribution that boots and runs completely from DVD. It includes recent linux software and desktop environments, with programs such as Libreoffice, GIMP, firefox, Pidgin, Totem and hundreds of other quality open source programs. It also includes

document converter, Presentation tool, bluetooth device support and Input method for Indian Languages.

*Using Live option you can test BOSS before installing it on your harddisk.
Later Proceed with Installation*

1.1.3 BOSS GNU/Linux Components

1. Kernel – 3.16.0-4-686-pae
2. Firefox Web Browser
3. Pidgin Internet Messenger
4. Libreoffice
5. BOSS Presentation Tool
6. Bulk Document Converter
7. Evolution Mail Client
8. Totem Movie Player
9. Banshee Music Player
10. guvcview Image viewer
11. Shotwell - Personal photo management application
12. Simple Scan - Image scanning program
13. K3b
14. I-Bus – Intelligent Input Bus
15. Document Viewer
16. Partition Editor
17. XChat – Internet Relay Chat
18. Synaptic Package Manager
19. Remmina Remote Desktop Client
20. Transmission BitTorrent Client

1.2 BOSS GNU/Linux Licensing

BOSS GNU/Linux is a collection of many computer programs and documents created by BOSS Team. Each of these works might come under a different license. Our License Policy describe the process that we follow in determining which software we will ship by default on the BOSS Install, Live and Utility.

The BOSS team is committed to Free and Open Source Software. The world is a better place if you have the source code to all the software on your computer, and the right to use that source code in constructive ways.

We would invite you to read more about our Free Software Philosophy and help to shape this policy further.

Categories of software in BOSS GNU/Linux

We organize the thousands of software packages available for BOSS GNU/Linux into three key components: main, contrib, non-free. Software is published in one of those components based on whether or not it meets our Free Software Philosophy, and the level of support we can provide for it. This policy really addresses the software that you will find in main and non-free. Those components contain software that is fully supported by the BOSS team and must comply with this policy.

All software in BOSS main and non-free must be licensed in a way that is compatible with our license policy. There are many definitions of "free" and free software so we have included our own set of guidelines, listed below.

BOSS GNU/Linux "main" Component License Policy

All application software included in the BOSS GNU/Linux main component:

Must include source code. The main component has a strict and non-negotiable requirement that application software included in it must come with full source code.

Must allow modification and distribution of modified copies under the same license. Just having the source code does not convey the same freedom as having the right to change it. Without the ability to modify software, the BOSS community cannot support software, fix bugs, translate it or improve it.

1.2.1 The BOSS Free & Open Source Software Guidelines

1. Free Redistribution

The license of a BOSS GNU/Linux component may not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from several different sources. The license may not require a royalty or other fee for such sale.

2. Source Code

The program must include source code, and must allow distribution in source code as well as compiled form.

3. Derived Works

The license must allow modifications and derived works, and must allow them to be distributed under the same terms as the license of the original software.

4.Integrity of The Author's Source Code

The license may restrict source-code from being distributed in modified form only if the license allows the distribution of "patch files" with the source code for the purpose of modifying the program at build time. The license must explicitly permit distribution of software built from modified source code. The license may require derived works to carry a different name or version number from the original software. (This is a compromise. The BOSS group encourages all authors not to restrict any files, source or binary, from being modified.)

5.No Discrimination Against Persons or Groups

The license must not discriminate against any person or group of persons.

6.No Discrimination Against Fields of Endeavor

The license must not restrict anyone from making use of the program in a specific field of endeavor. For example, it may not restrict the program from being used in a business, or from being used for genetic research.

7.Distribution of License

The rights attached to the program must apply to all to whom the program is redistributed without the need for execution of an additional license by those parties.

8.License Must Not Be Specific to BOSS GNU/Linux

The rights attached to the program must not depend on the program's being part of a BOSS GNU/Linux system. If the program is extracted from BOSS GNU/Linux and used or distributed without BOSS GNU/Linux but otherwise within the terms of the program's license, all parties to whom the program is redistributed should have the same rights as those that are granted in conjunction with the BOSS system.

9.License Must Not Contaminate Other Software

The license must not place restrictions on other software that is distributed along with the licensed software. For example, the license must not insist that all other programs distributed on the same medium must be free software.

10.Example Licenses

The "GPL", "BSD", and "Artistic" licenses are examples of licenses that we consider "free".

2 Installation Steps

This manual helps you to install BOSS GNU/Linux on desktops and laptops. The installation system is flexible enough to use even if you have no previous knowledge of Linux or computer networks. If you select default options, BOSS GNU/Linux provides a complete desktop operating system, including productivity applications, Internet utilities, and desktop tools.

This document does not detail all of the features of the installation system. If you want the complete details of the features during installation please check our BOSS website at <http://www.bosslinux.in>

2.1 Before You Begin

2.1.1 System Requirements

BOSS GNU/Linux does not impose hardware requirements beyond the requirements of the Linux kernel and the GNU tool-sets. Therefore, any architecture or platform to which the Linux kernel, libc, gcc, etc. have been ported, can run BOSS GNU/Linux. To install BOSS GNU/Linux you need very minimum system configurations. The hardware requirement details are as follows:

- Hard Disk – 10.0 GB (unpartitioned space)
- RAM – 512 MB
- DVD-ROM drive

To install BOSS GNU/Linux from disc, you need the installation DVD, currently, BOSS GNU/Linux supports the *i386*, *ppc*, and *x86_64* architectures. These architectures are described below:

i386

Intel x86-compatible processors, including Intel Pentium and Pentium-MMX, Pentium Pro, Pentium-II, Pentium-III, Celeron, Pentium 4, and Xeon; VIAC3/C3-m and Eden/Eden-N; and AMD Athlon, AthlonXP, Duron, AthlonMP, and Sempron

x86_64

64-bit AMD processors such as Athlon64, Turion64, Opteron; and Intel 64-bit processors such as EM64T

2.1.2 Overview of the Installation Process

First, just a note about re-installations. With BOSS GNU/Linux, a circumstance that will require a complete re-installation of your system is very rare; perhaps mechanical failure of the hard disk would be the most common case. Many common operating systems may require a complete installation to be performed when critical failures take place or for upgrades to new OS versions. Even if a completely new installation isn't required, often the programs you use must be re-installed to operate properly in the new OS. Under BOSS GNU/Linux, it is much more likely that your OS can be repaired rather than replaced if things go wrong. Upgrades never require a wholesale installation; you can always upgrade in-place. And the programs are almost always compatible with successive OS releases. If a new program version requires newer supporting software, the BOSS packaging system ensures that all the necessary software is automatically identified and installed. The point is, much effort has been put into avoiding the need for re-installation, so think of it as your very last option. The installer is not designed to re-install over an existing system. Here's a road map for the steps you will take during the installation process.

1. Back up any existing data or documents on the hard disk where you plan to install.
2. Gather information about your computer and any needed documentation, before starting the installation.
3. Create partition-table space for BOSS on your hard disk.
4. Set up the first boot drive to DVD drive (through CMOS setup) and restart your system.
5. Insert the BOSS GNU/Linux DVD into the drive
6. Boot the installation system.
7. Select installation language.
8. Activate the ethernet network connection, if available.

9. Create and mount the partitions on which BOSS GNU/Linux will be installed.
10. Watch the automatic install/setup of the base system.
11. Installs additional software (tasks and/or packages), at your discretion.
12. Installs a boot loader which can start up BOSS GNU/Linux on your existing system.
13. Load the newly installed system for the first time, and make some initial system settings.
14. If you have problems during the installation, it helps to know which packages are involved in which steps.
15. Introducing the leading software actors in this installation drama: The installer software, `debian-installer`, is the primary concern of this manual. It detects hardware and loads appropriate drivers, uses `dhclient` to set up the network connection, and runs `debootstrap` to install the base system packages. Many more actors play smaller parts in this process, but `debian-installer` has completed its task when you load the new system for the first time. Upon loading the new base system, `base-config` supervises adding users, setting a time zone (via `tzsetup`), and setting up the package installation system (using `apt-setup`). It then launches `tasksel` which can be used to select large groups of related programs, and in turn can run `aptitude` which allows you to choose individual software packages.

2.1.3 Back Up Your Existing Data!

Before you start, make sure to back up every file that is now on your system. If this is the first time a non-native operating system has been installed on your computer, it's quite likely you will need to re-partition your disk to make room for BOSS GNU/Linux. Anytime you partition your disk, you should count on losing everything on the disk, no matter what program you use to do it. The programs used in installation are quite reliable and most have seen years of use; but they are also quite powerful and a false move can cost you.

Even after backing up be careful and think about your answers and actions. Two minutes of thinking can save hours of unnecessary work. If you are creating a multi-boot system, make sure that you have the distribution media of any other present operating systems on hand. Especially if you repartition your boot drive, you might find that you have to reinstall your operating system's boot loader, or in many cases the whole operating system itself and all files on the affected partitions.

2.2 Beginning the Installation

To begin installation of BOSS GNU/Linux, boot the computer from the boot media i.e from CD or DVD or any other storage bootable media like USB .

The *B IOS* (Basic Input/Output System) on your computer must support the type of boot media you select. The BIOS controls access to some hardware devices during boot time. Any computer that meets the minimum recommended specification for BOSS GNU/Linux can boot from a CD or DVD drive with the first disc.

If you are not sure what capabilities your computer has, or how to configure the BIOS, consult the documentation provided by the manufacturer. Detailed information on hardware specifications and configuration is beyond the scope of this document.

Aborting the Installation

To abort the installation process at any time before the **Installing Packages** screen, either press *Ctrl+Alt+Del* or power off the computer with the power switch. BOSS GNU/Linux makes no changes to your computer until package installation begins. Booting from Disc

To boot your computer from disc:

1. Switch on the computer.
2. Insert the disc into the DVD drive.
3. A screen appears to ask for a booting option.,
 - 1) *Start BOSS Live*
 - 2) *Install BOSS-Graphical*
 - 3) *Install BOSS-Text Mode*
 - 4) *Advance options*
 - 5) *Help*
1. Booting through “Start BOSS Live” will take you a tour around BOSS virtually. Using this Live Boot you can check out the BOSS desktop and its applications and once you are satisfied with BOSS., you can come back and choose for “Install BOSS-Graphical” or “Install BOSS-Text Mode”.

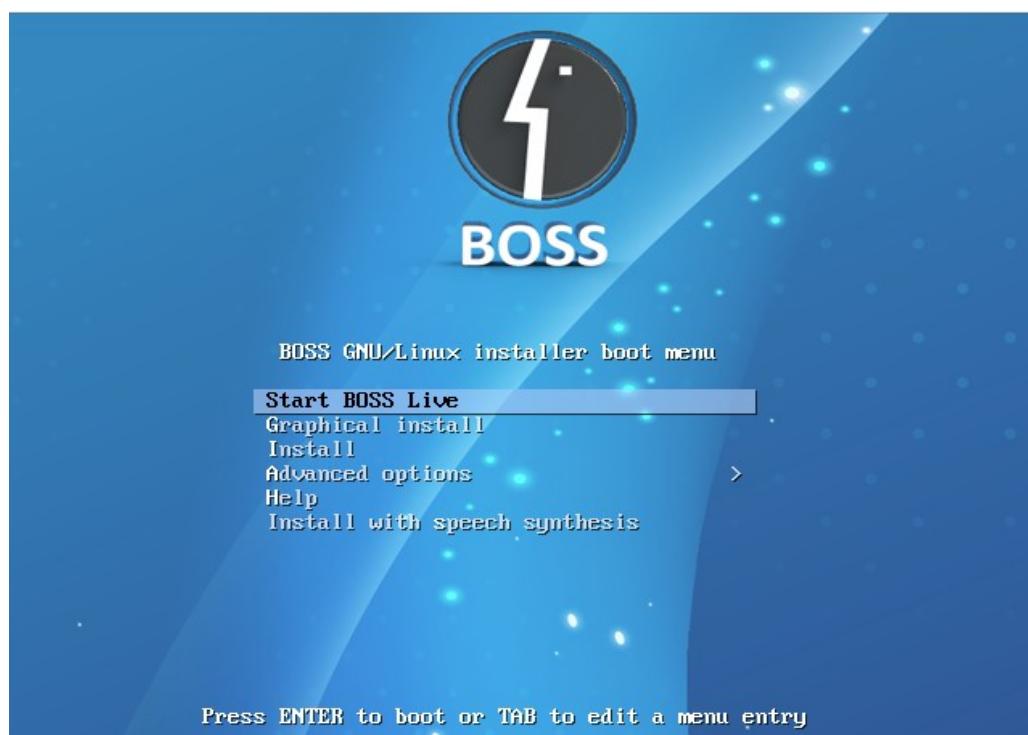


Figure 1. Boot Screen

2.3 Language Selection

The installation program displays a list of languages which are supported by BOSS GNU/Linux. Select the Language as “English” / “Tamil” / “Hindi” (or any other). Click “Continue” to proceed.

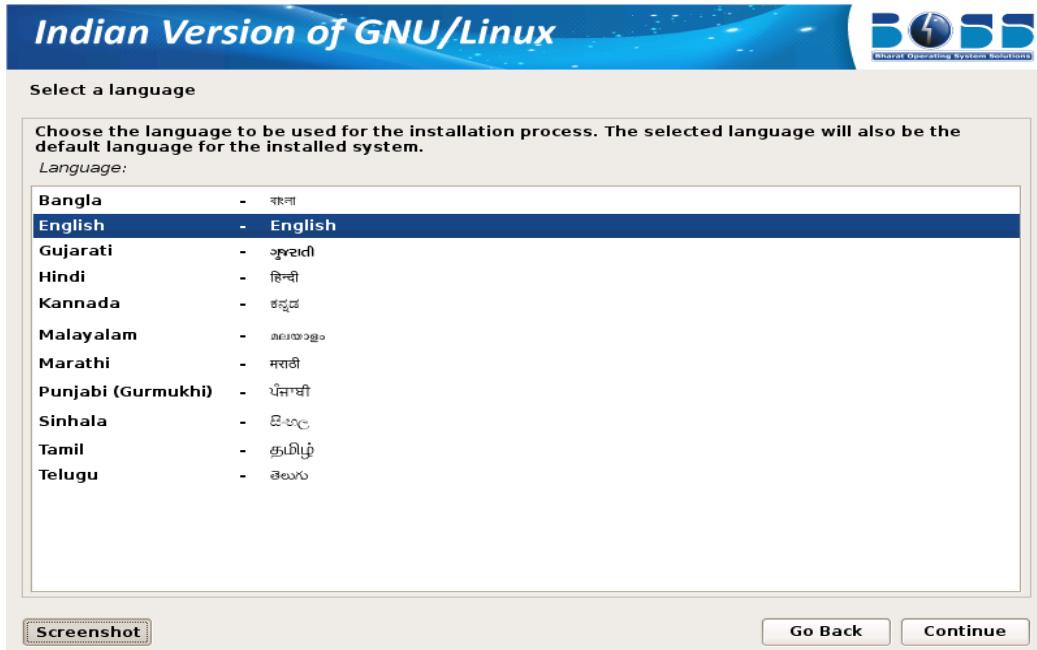


Figure 2. Language Selection Screen

2.4 Country Selection

Next the country selection screen appears. Select the appropriate country from the list. Click “Continue” and proceed further

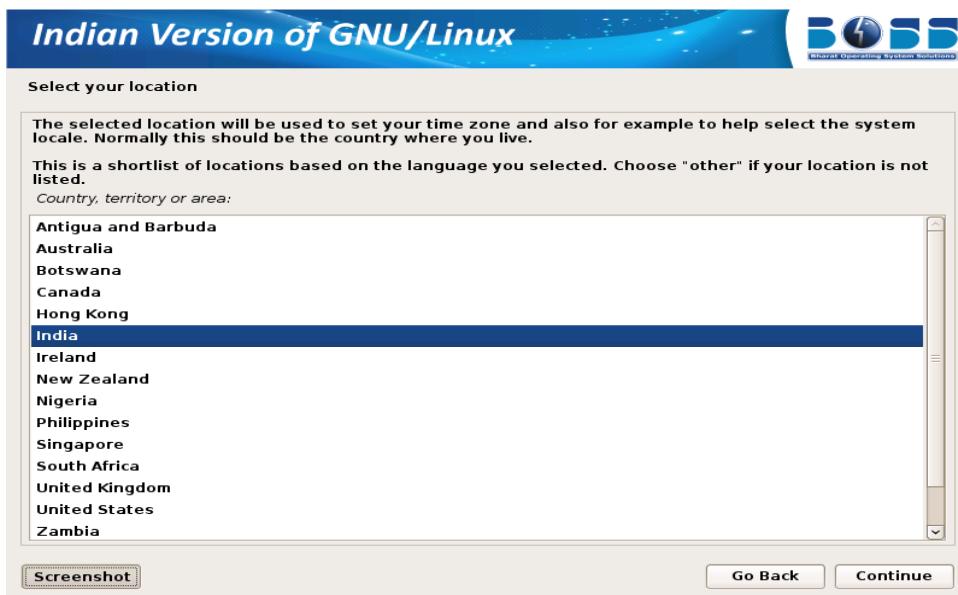


Figure 3. Country Selection Screen

2.5 Keyboard Configuration

The installation program displays a list of the keyboard layouts supported by BOSS GNU/Linux. Highlight the correct layout on the list, and select “Next”.

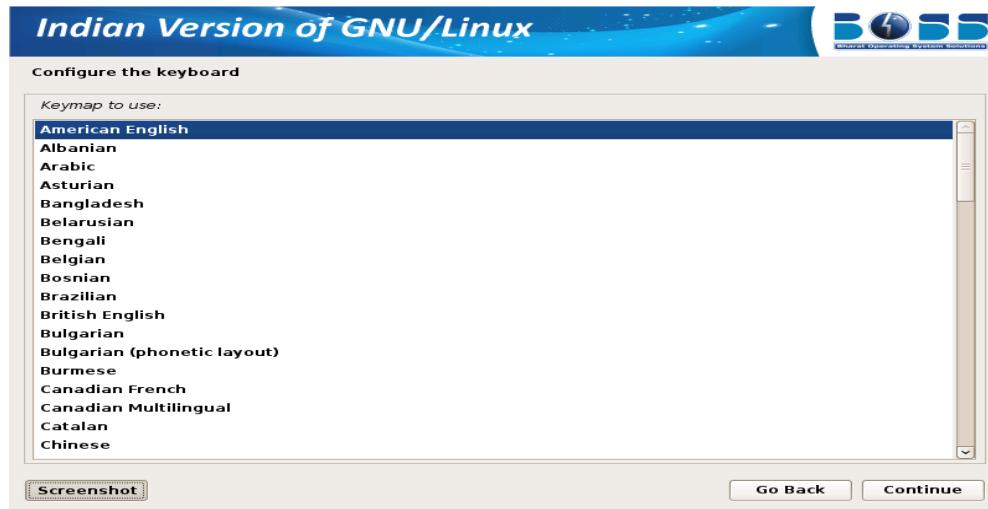


Figure 4. Keyboard Configuration Screen

2.6 Network Configuration

Configuring Network Automatically

If you have a DHCP Server, then the Network will be automatically configured. There is no need

for the user to bother about the network configuration.

Configuring Network Manually

If that is not the case, you need to manually configure the network. When the DHCP server is not available, the following screen appears which means you need to configure manually.

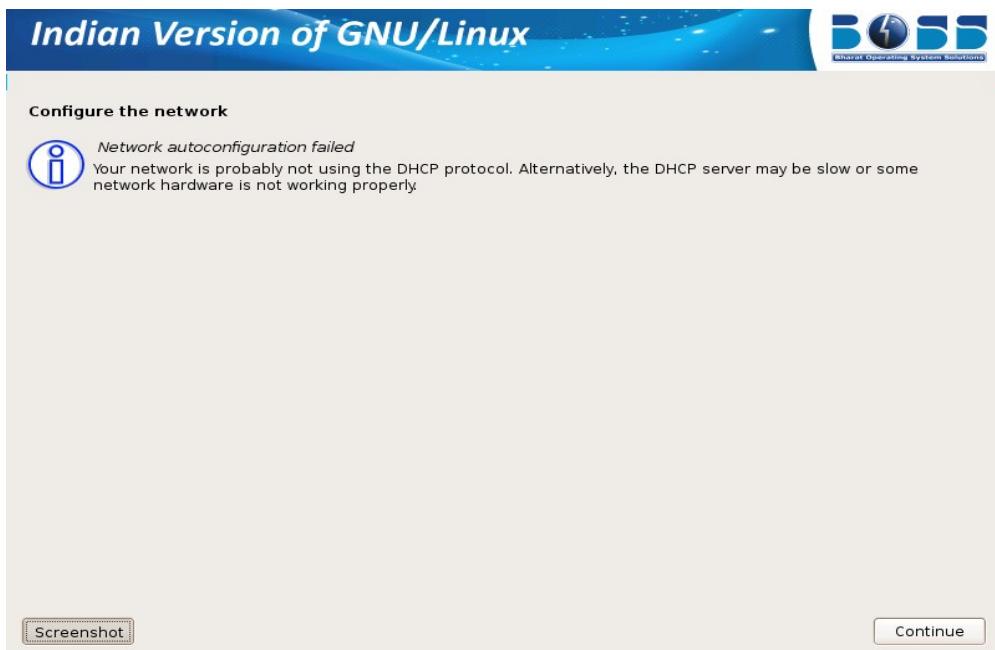


Figure 5.1 Network Configuration

Click on “Continue” to proceed towards Manual Network configuration.

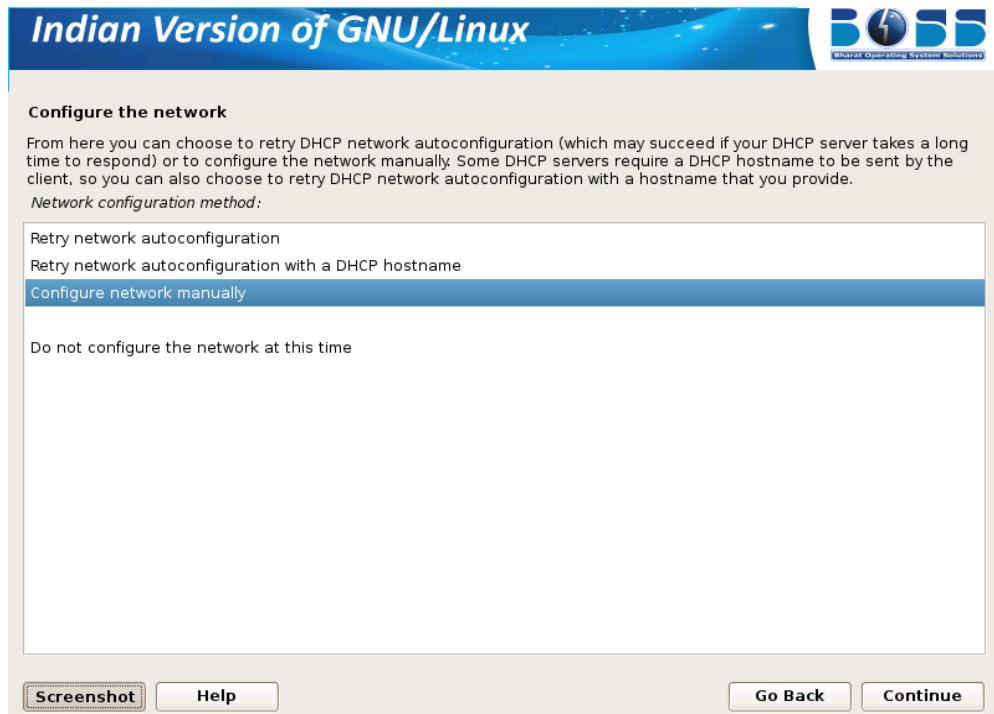


Figure 5.2 Network Configuration

Select “Configure Network Manually” and set the IP address and configure network.

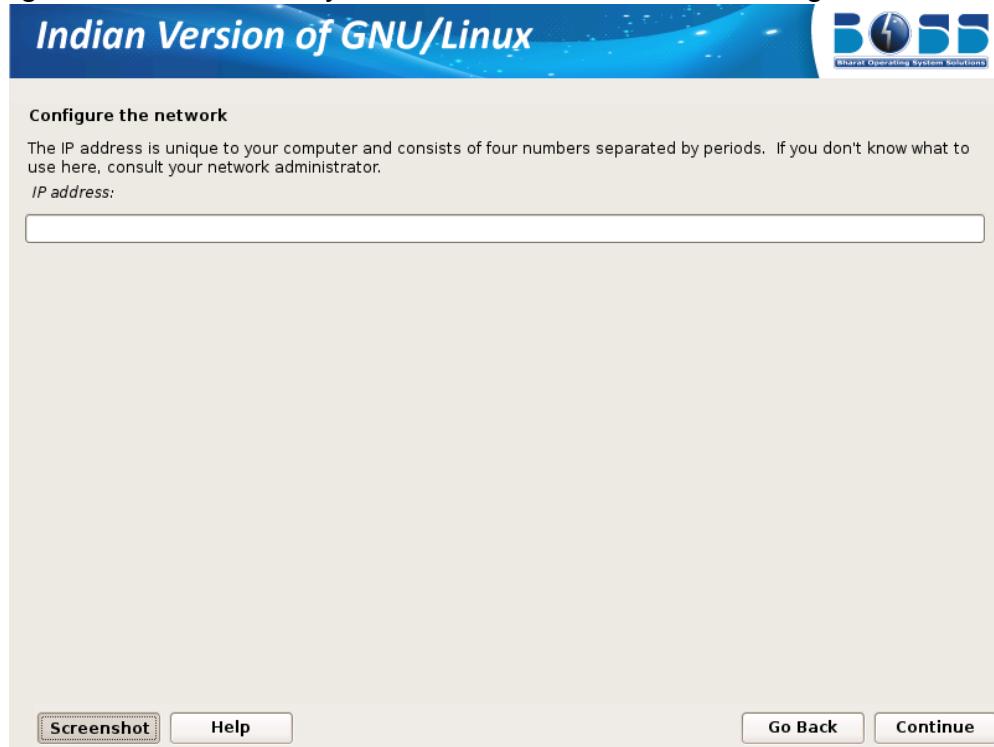


Figure 5.3 Network Configuration

The screen shots are as follows:

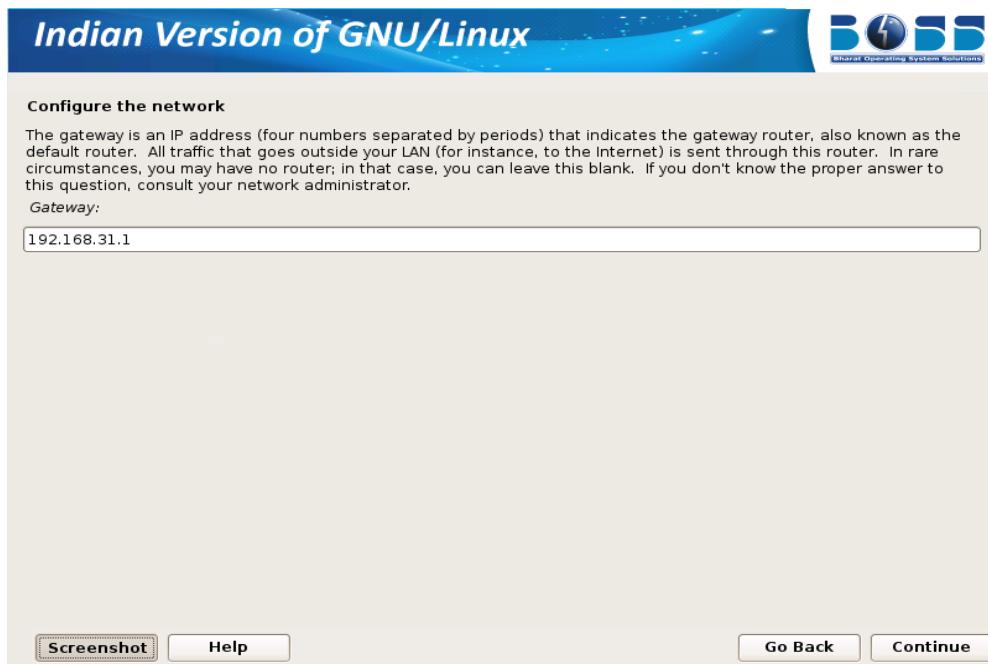


Figure 5.4 Network Configuration

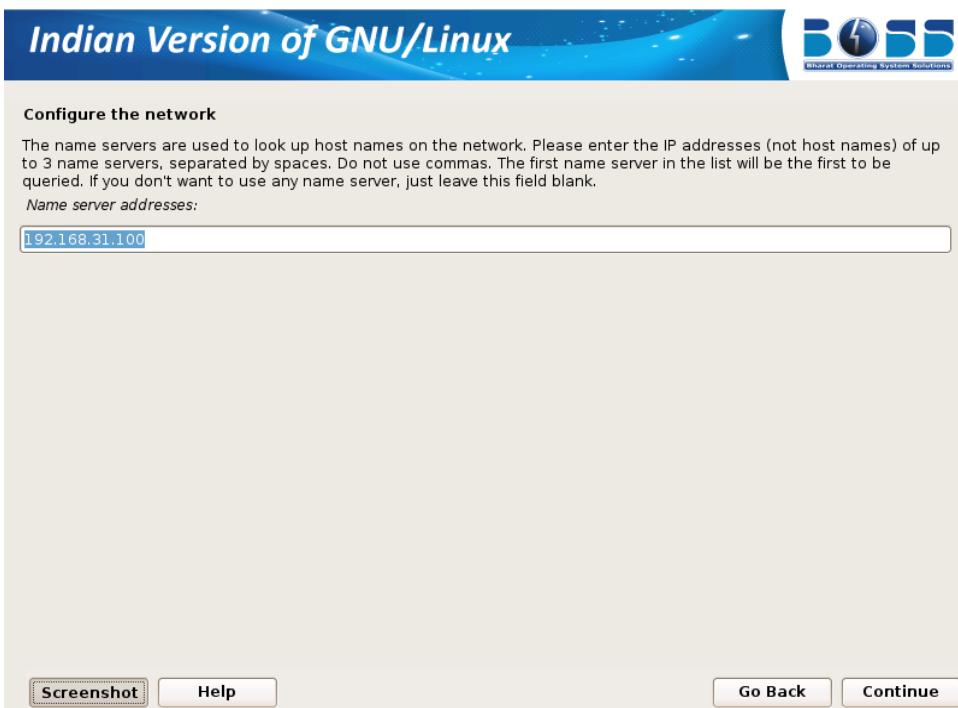


Figure 5.5 Network Configuration

The next screen will ask you to enter the hostname for the system.

2.7 Disk Partitioning Setup

If you are new to Linux, you may want to use the automatic partitioning method. If you are a more experienced Linux user, use the manual partitioning method for more control over your system configuration, or select and modify the automatically defined partitions.

The screen below shows the way you would like to partition. These are the following ways in which you can partition the hard disk

- a) Automatic partitioning
- b) LVM partitioning
- c) Manual partitioning.

a) Automatic Partitioning

By selecting automatic partitioning, you will not have to use partitioning tools to assign mount points, create partitions or allocate space for your installation.

You will be provided with two options in automatic partition -

- Format entire Hard Disk
- Use Existing Hard disk Space

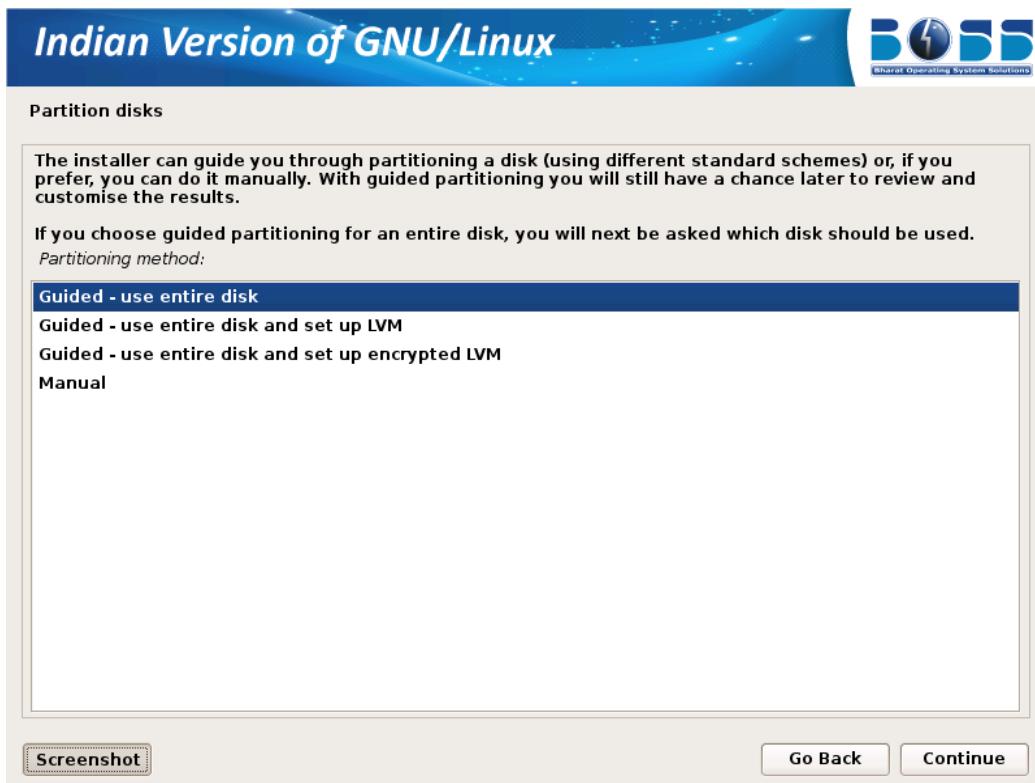


Figure 6.1 Format Entire Hard Disk

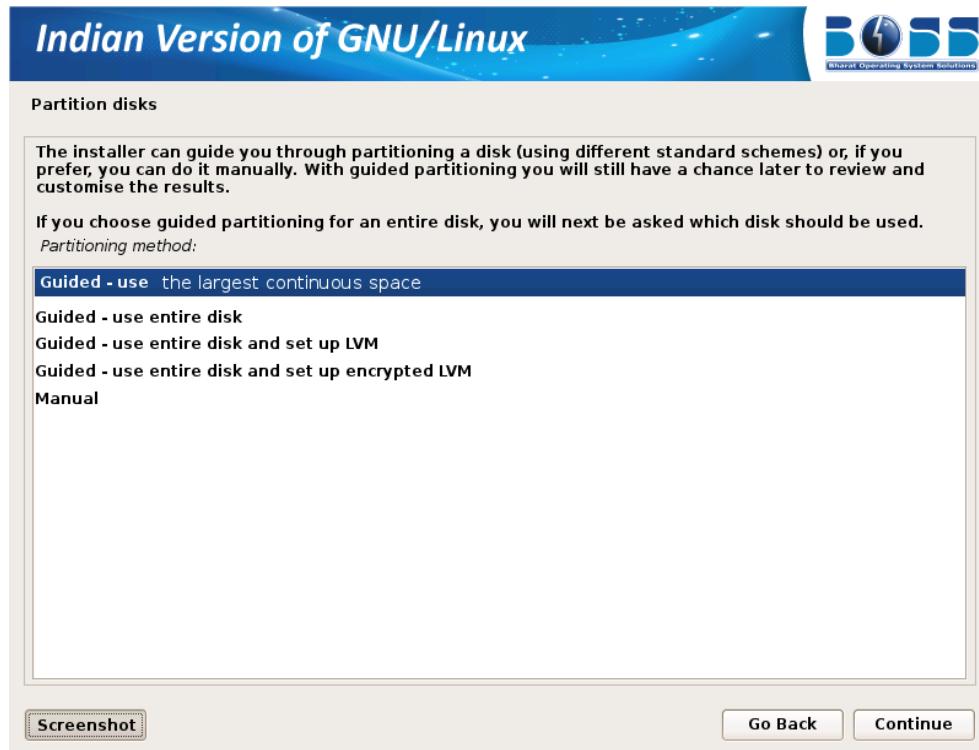


Figure 6.2 Use the largest Free Space Available

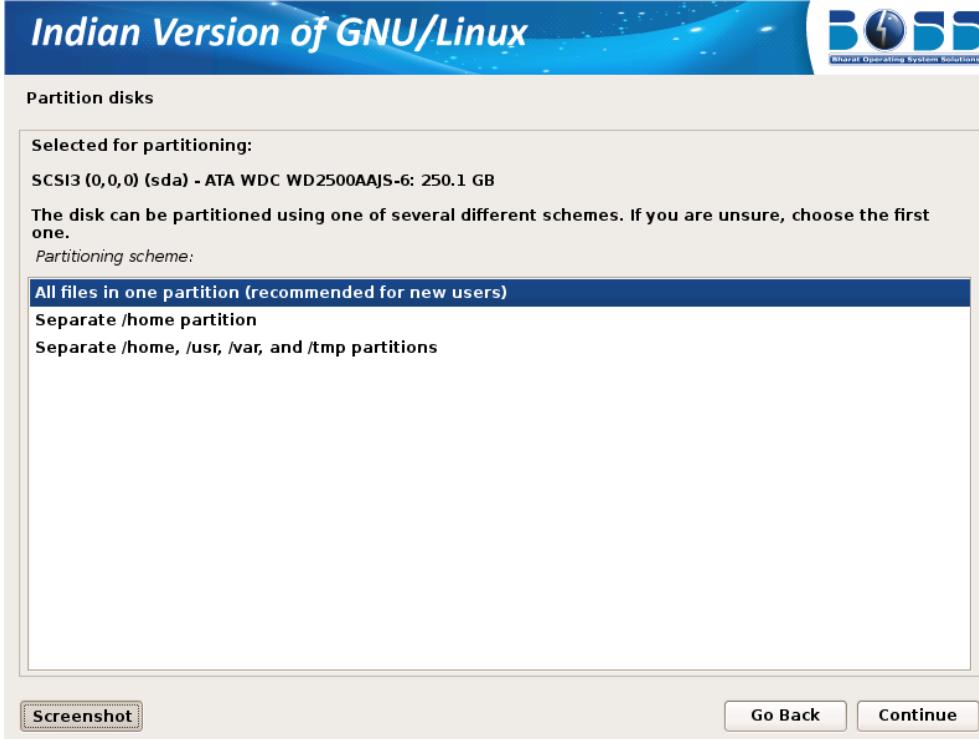


Figure 6.3 Allot the space for different directories

b) LVM partitioning

LVM is a tool for logical volume management which includes allocating disks, resizing logical volumes. The Logical Volume Manager (LVM) enables flexible distribution of hard disk space over several file systems. As it is difficult to modify partitions on a running system, LVM was developed. It provides a virtual pool (Volume Group — VG for short) of memory space from which logical volumes (LV) can be generated if needed. The operating system accesses these instead of the physical partitions.

The screen shots are as follows:

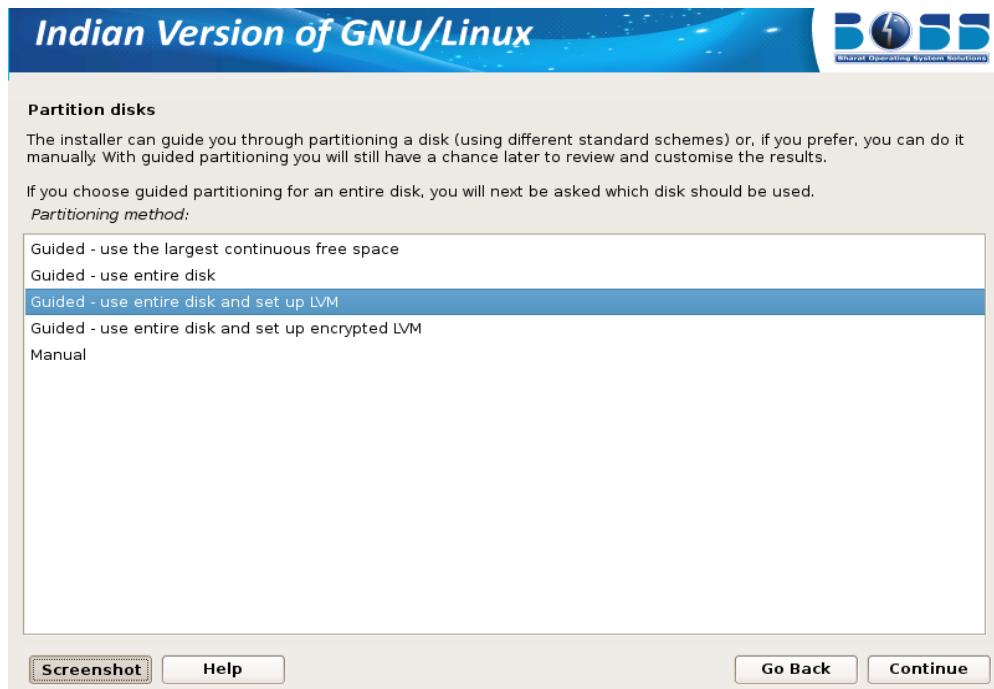


Figure 6.4 LVM Partitioning

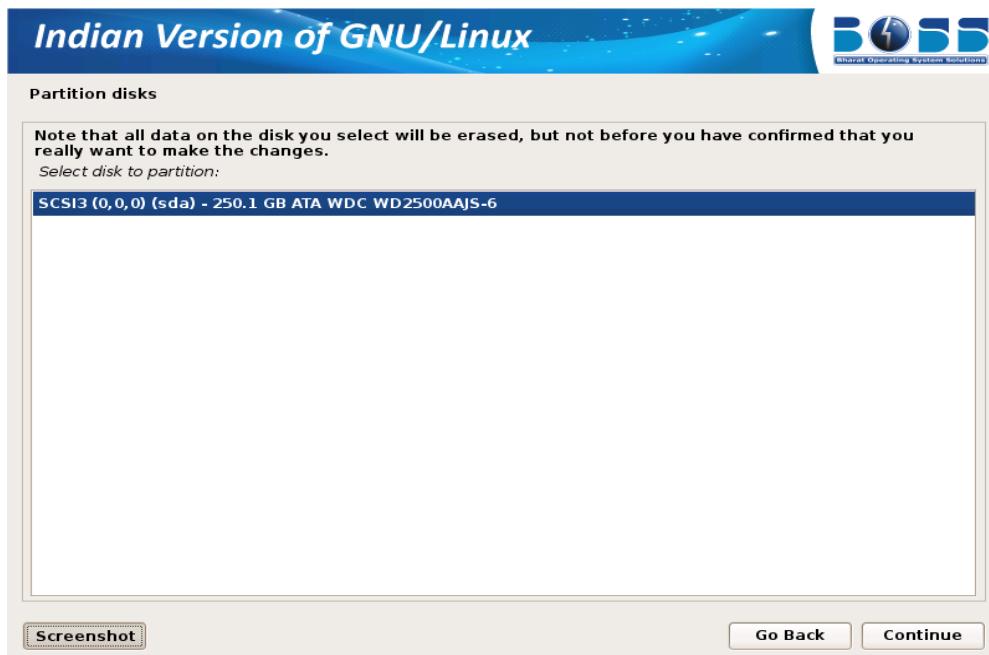


Figure 6.5 Select the disk to partition

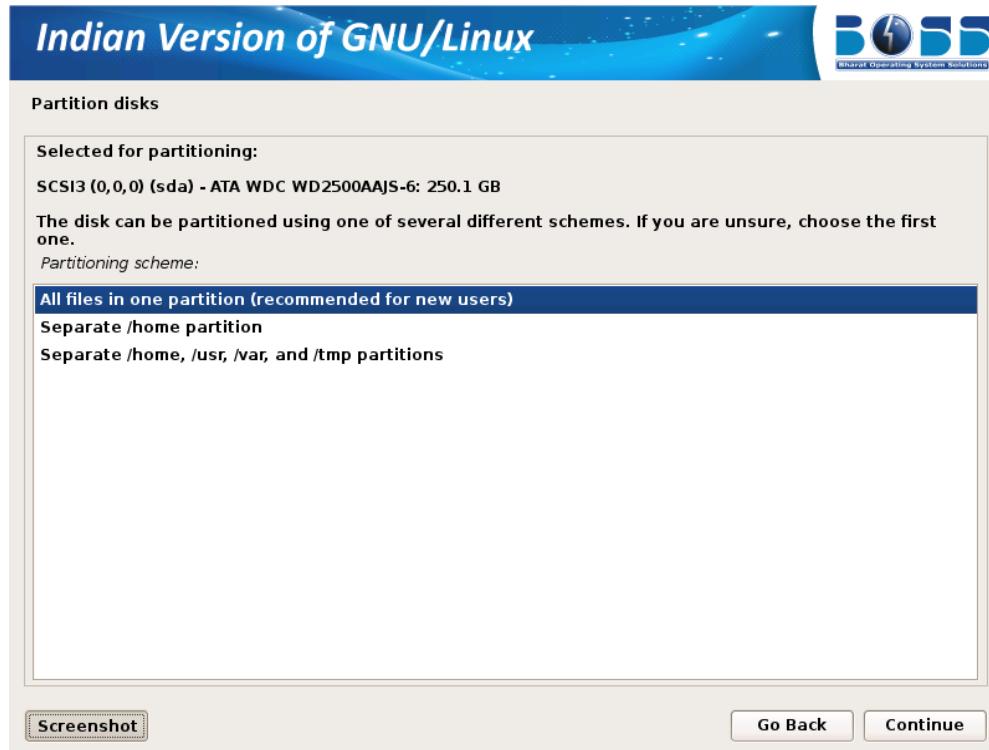


Figure 6.6 LVM Partitioning



Figure 6.7 Finish Partitioning

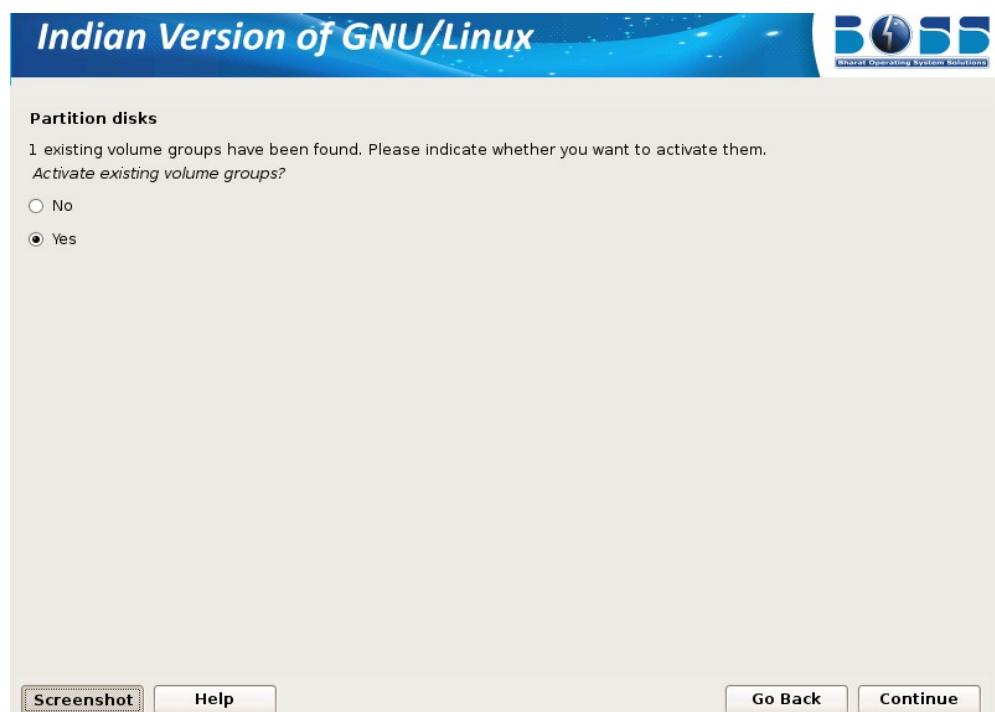


Figure 6.8 LVM Partitioning



Figure 6.9 LVM Partitioning

Use Existing Hard disk Space

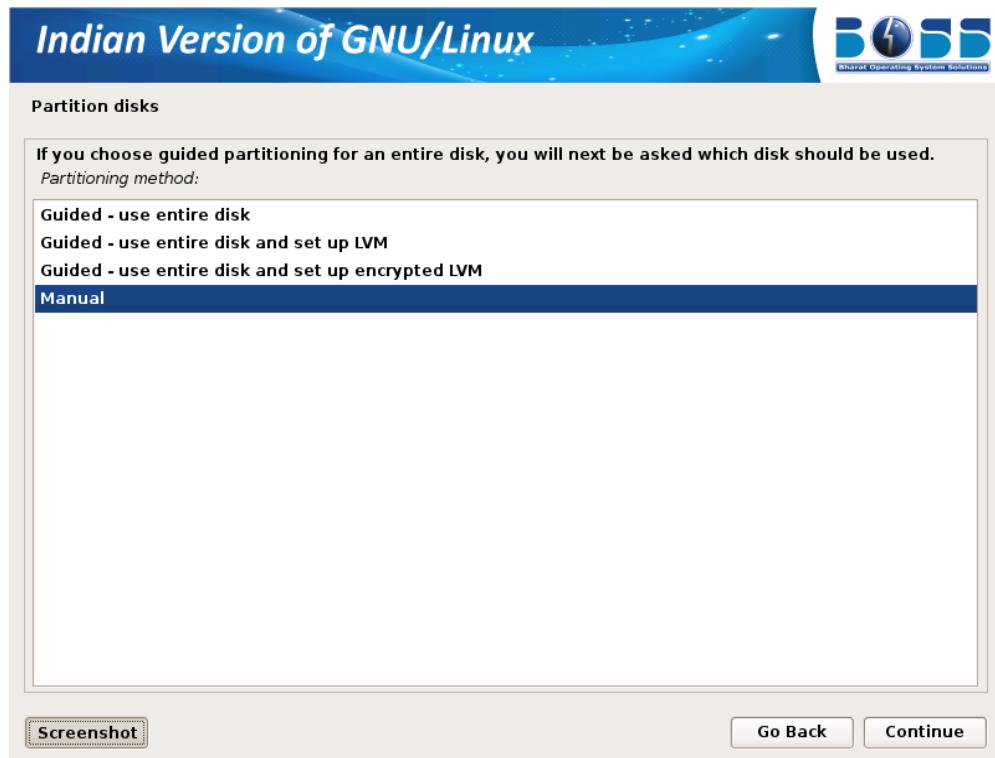
This means that you need to have an empty unpartitioned free space which is not used for any other OS like Windows or Linux. Once you select this option it will ask you for the partition space details and then format it, later the installation proceeds.

c) Manual Partitioning

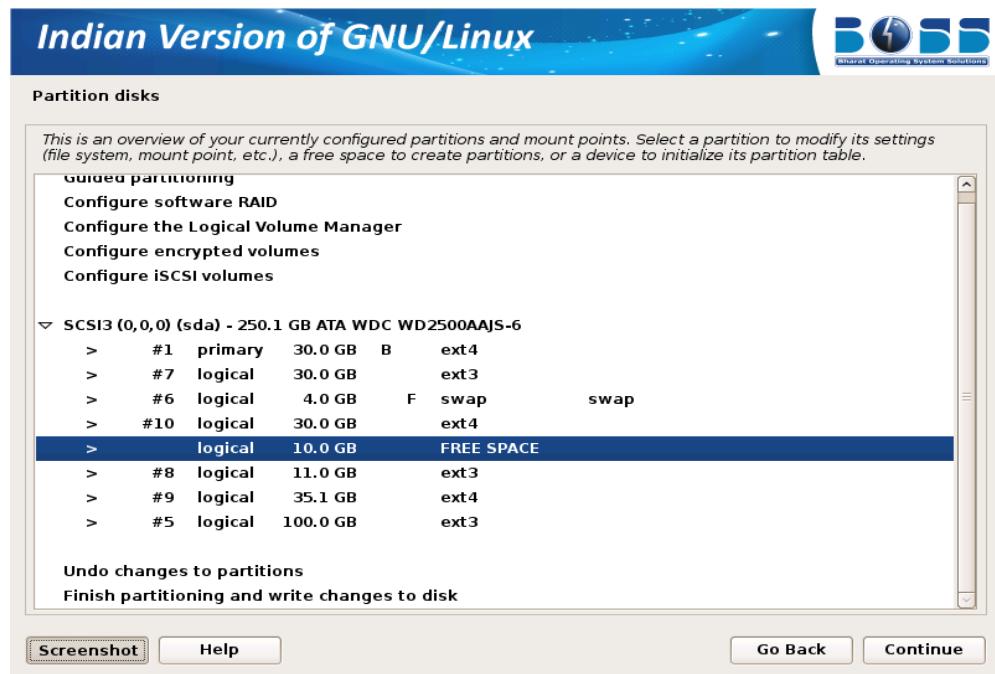
Creating a new partition

To partition manually , the following screen shots will help you setting up the partition.

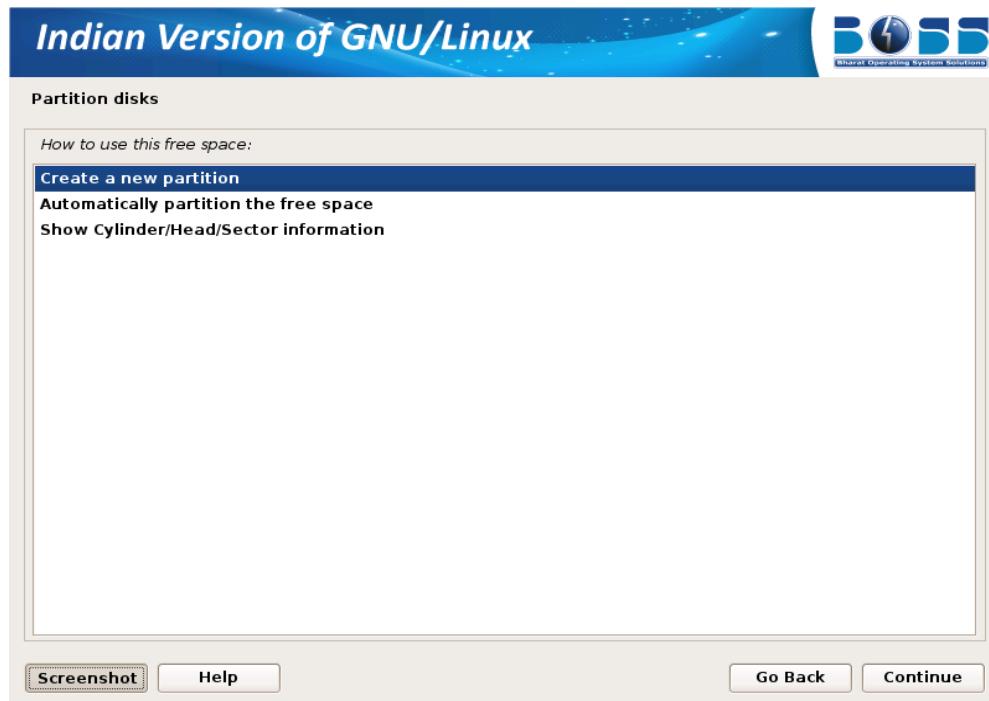
1. A screen with name “Partition disks” will be displayed. In that click “Manual” and then click “Continue.”



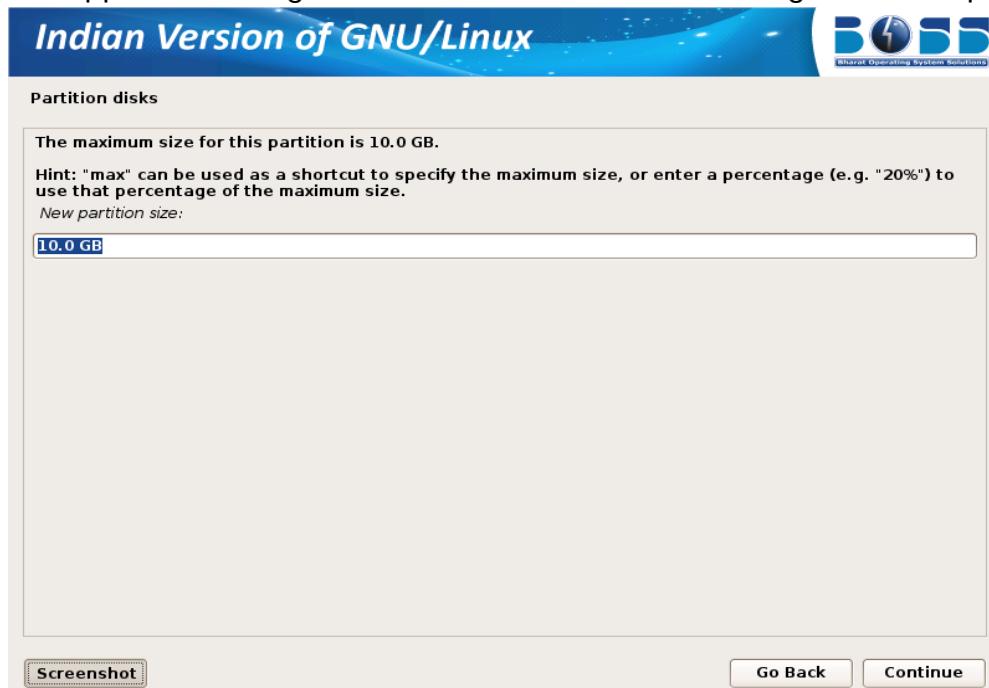
- After clicking “Manual” a screen will be displayed which contains overview of your currently configured partitions. Click on free space and then click “Continue”.



3. Create new partition for BOSS GNU/Linux by double clicking “Create a new partition”

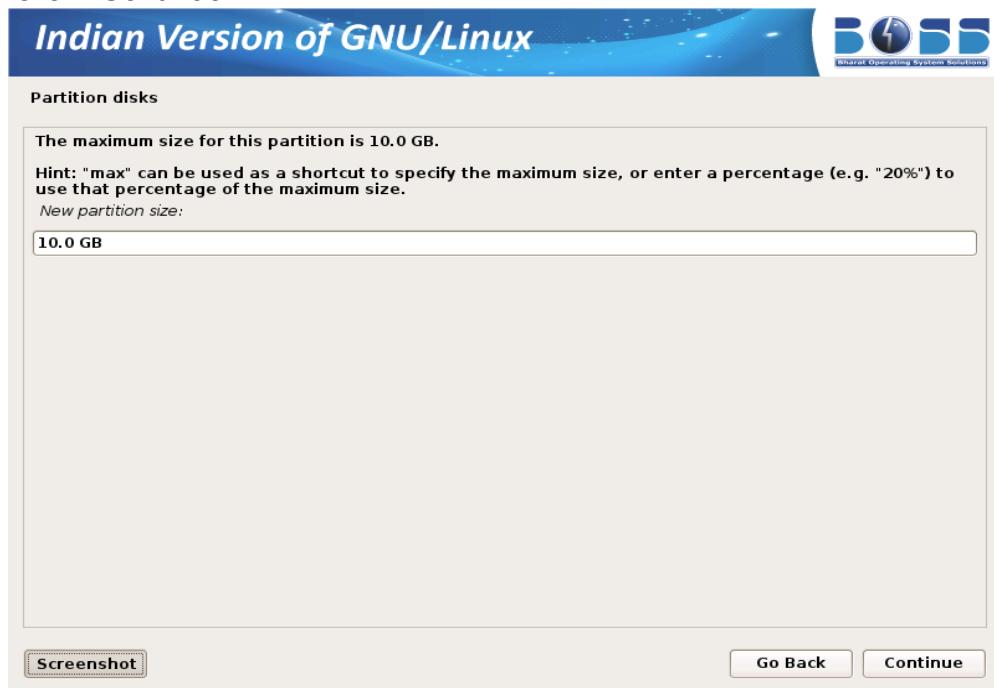


4. A screen appears showing the maximum size that can be assigned for this partition.

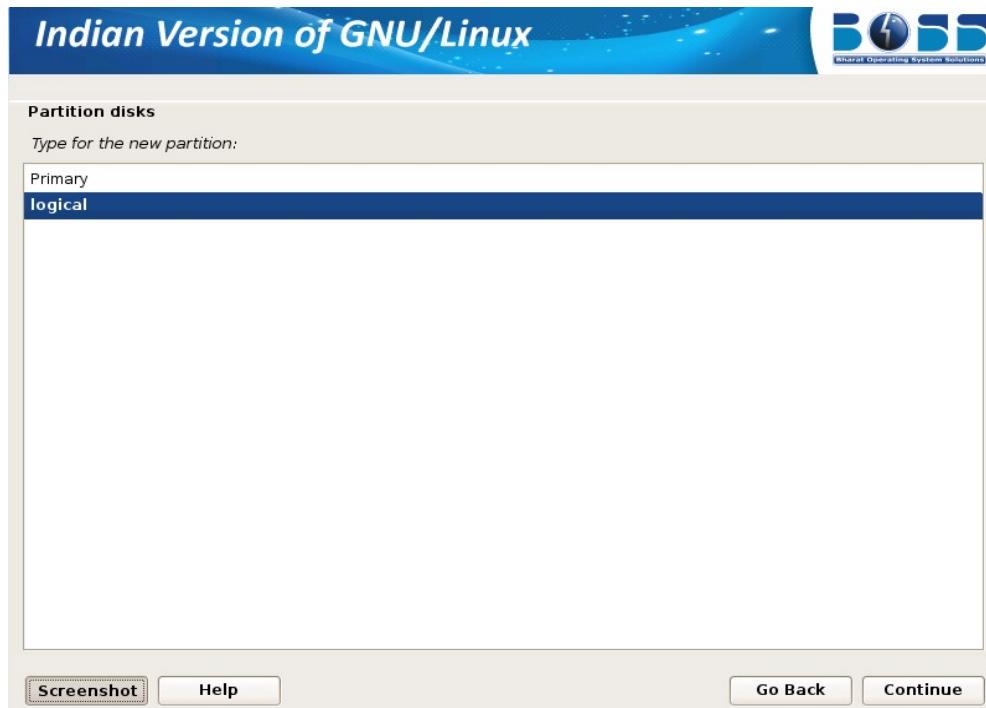


In this screen change the size to your required size. The minimum should be 5.0 GB.

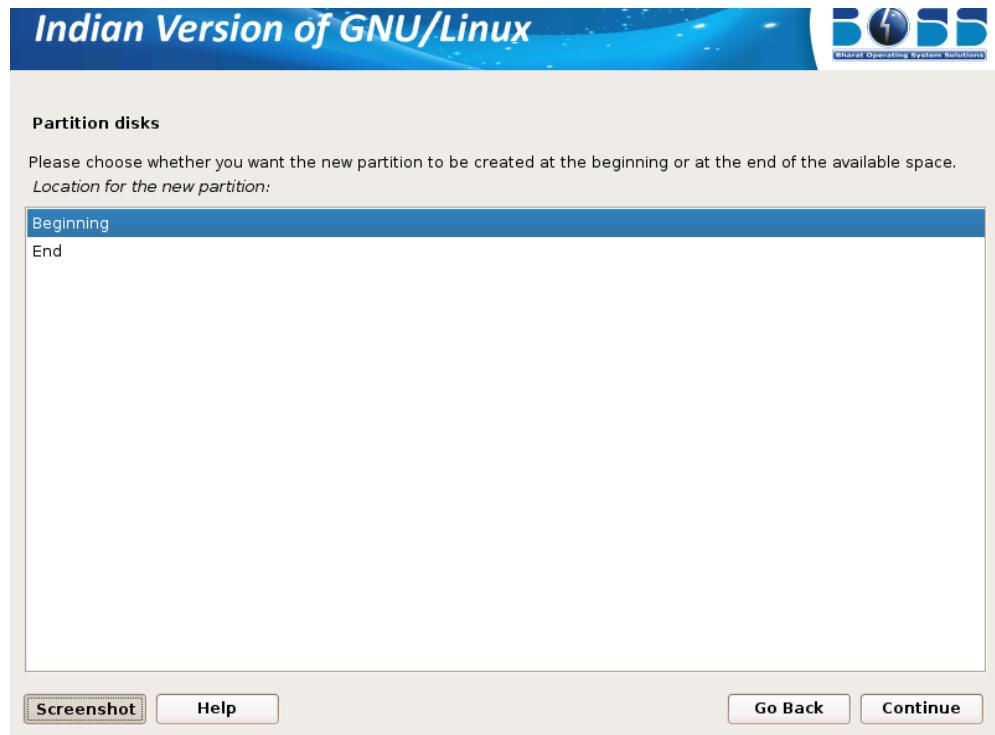
Then click “Continue”.



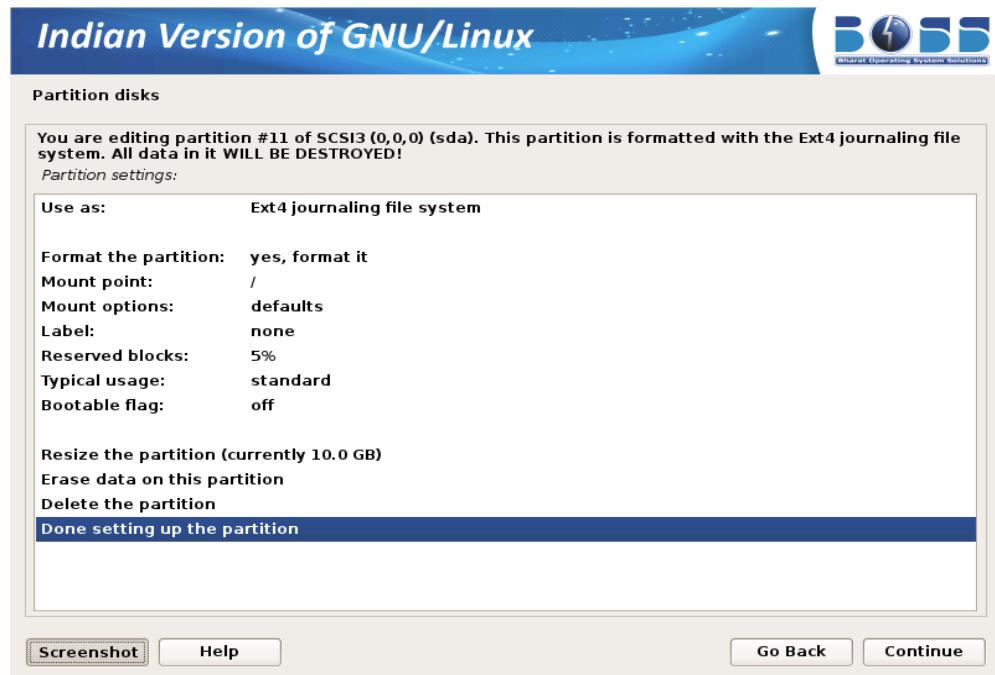
5. Select the type for the new partition.



6. Specify whether the partition should be at the beginning or at the End.

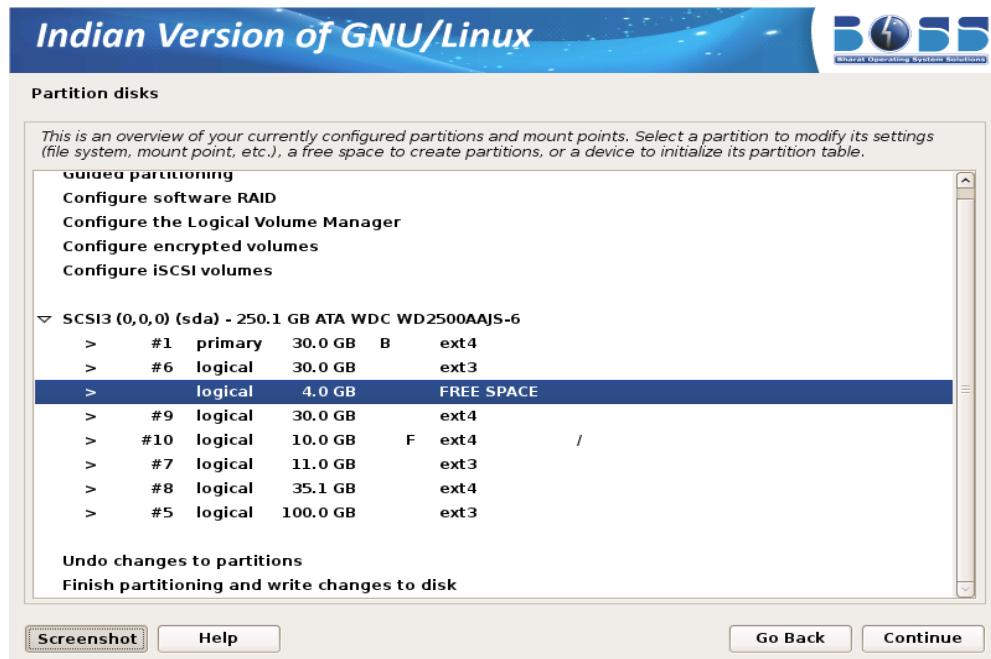


- Click “Done setting up the partition” and then click “Continue”.



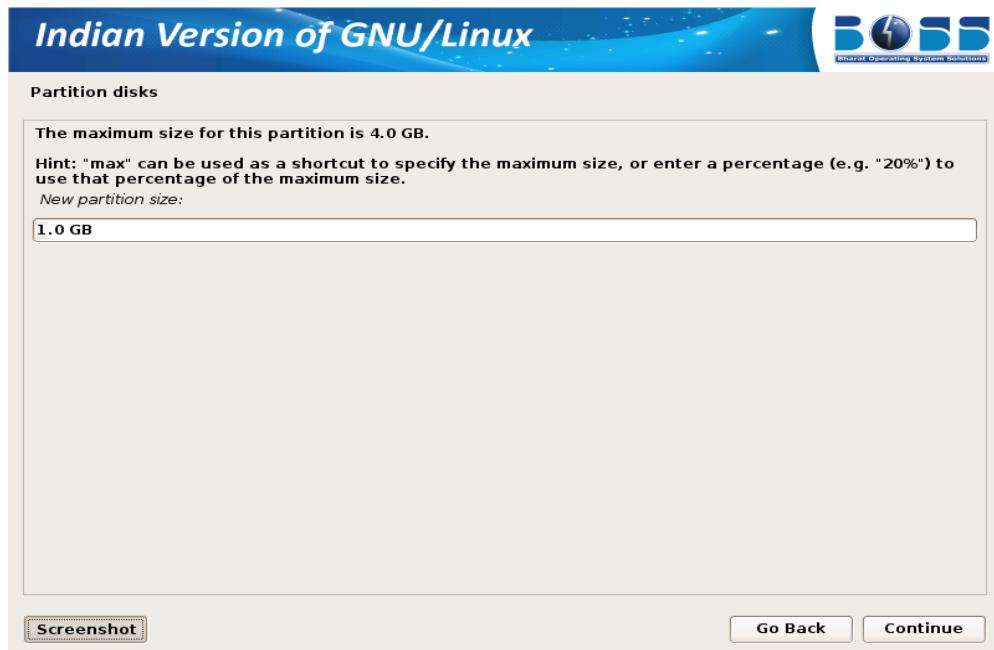
After selecting the partition for the “/”, you need to select a partition for the “swap” space. If you are already having Linux installed on your system then you will be having a swap space in your system. If so no need of another swap space. The swap should be double the RAM size. If there is no swap space then create a new swap space. The screen shots are as follows:

8. Create a swap area of 1 GB from free space.

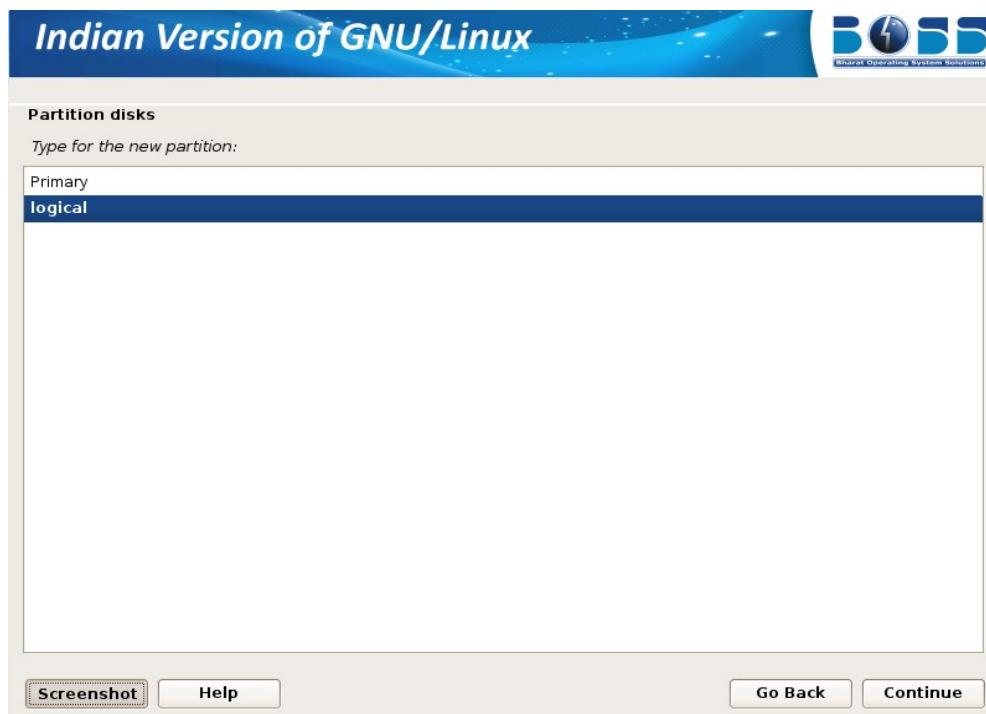


9. Click “Create a new partition” and then click “Continue”.

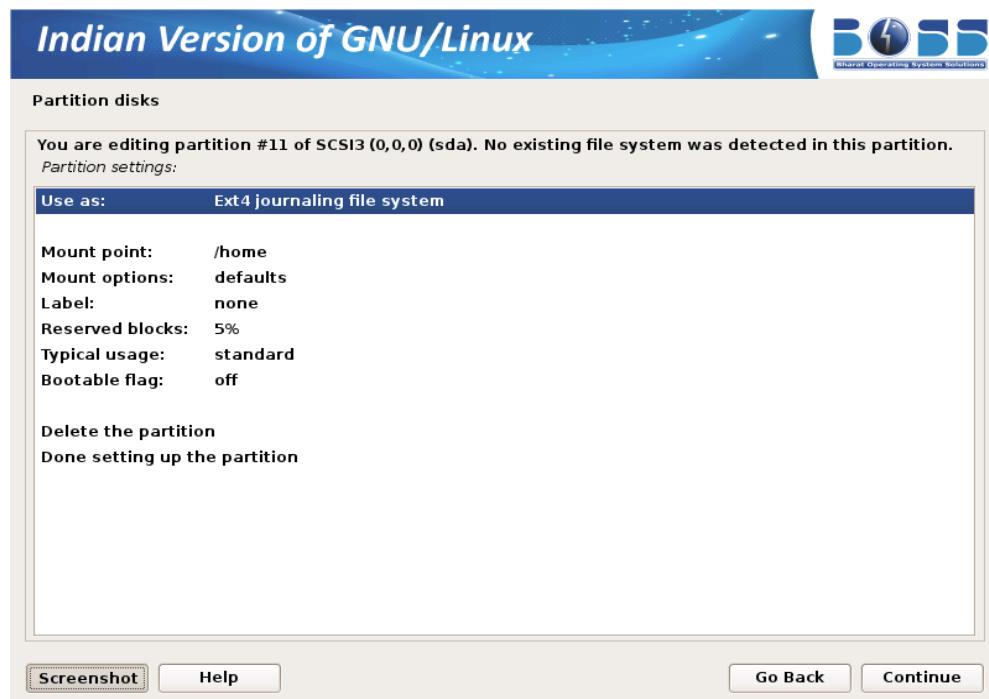
10. Specify the partition size for swap area as 1.0 GB.



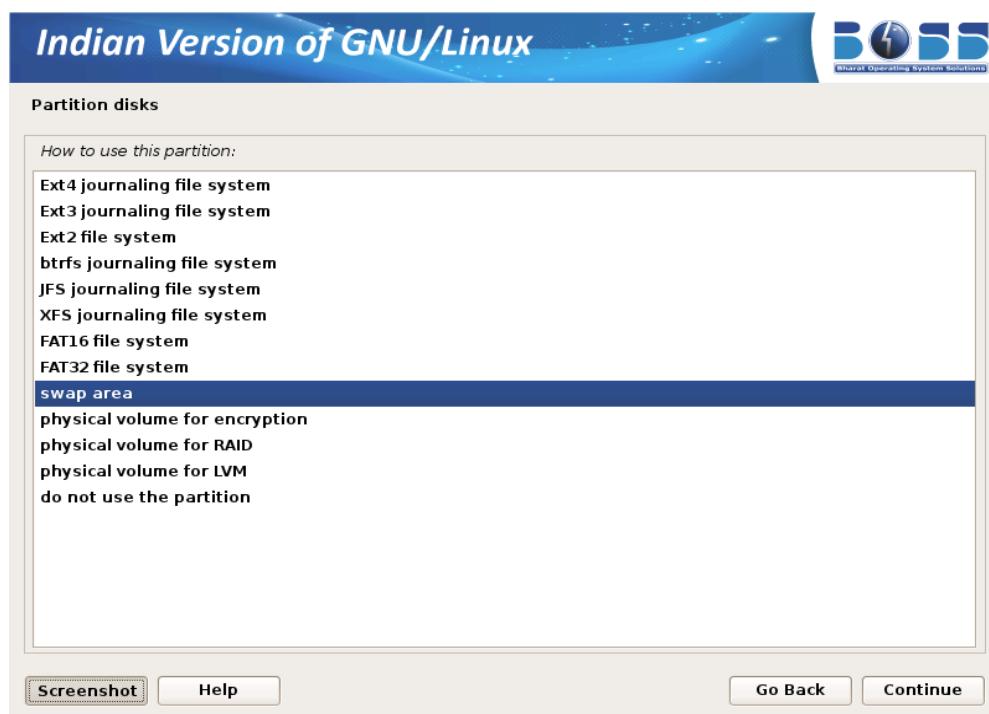
11. Select the type for the new partition.
12. Specify whether the partition should be at the beginning or at the End.



13. Change default file system ext4 to swap by double clicking “Ext4 journaling file system” in the screen shown below.

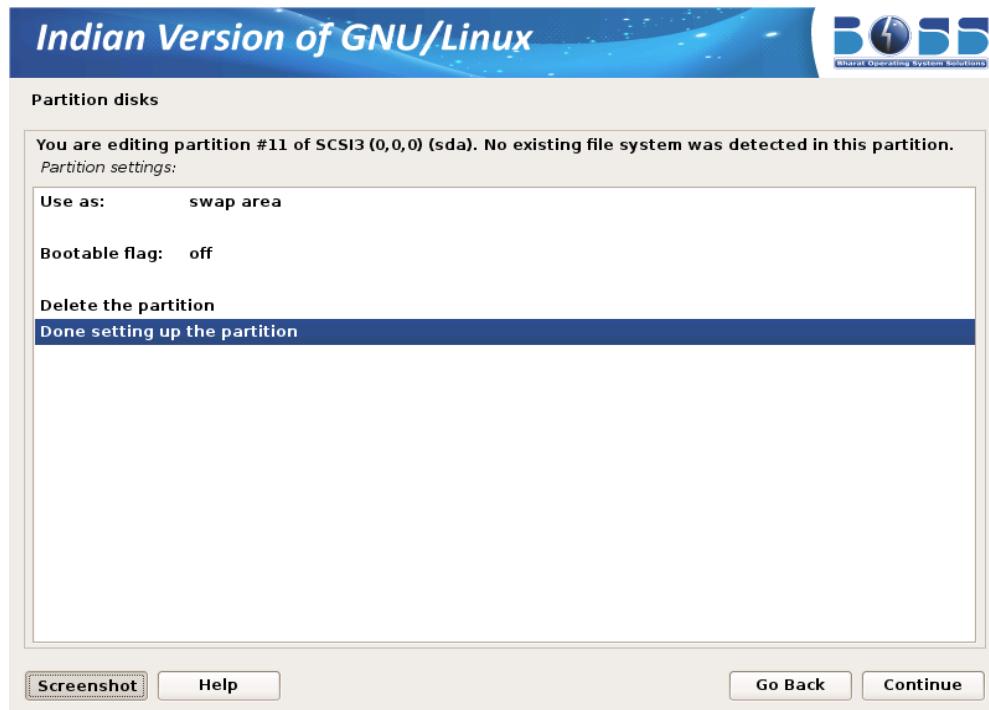


14. Double click “swap area”.

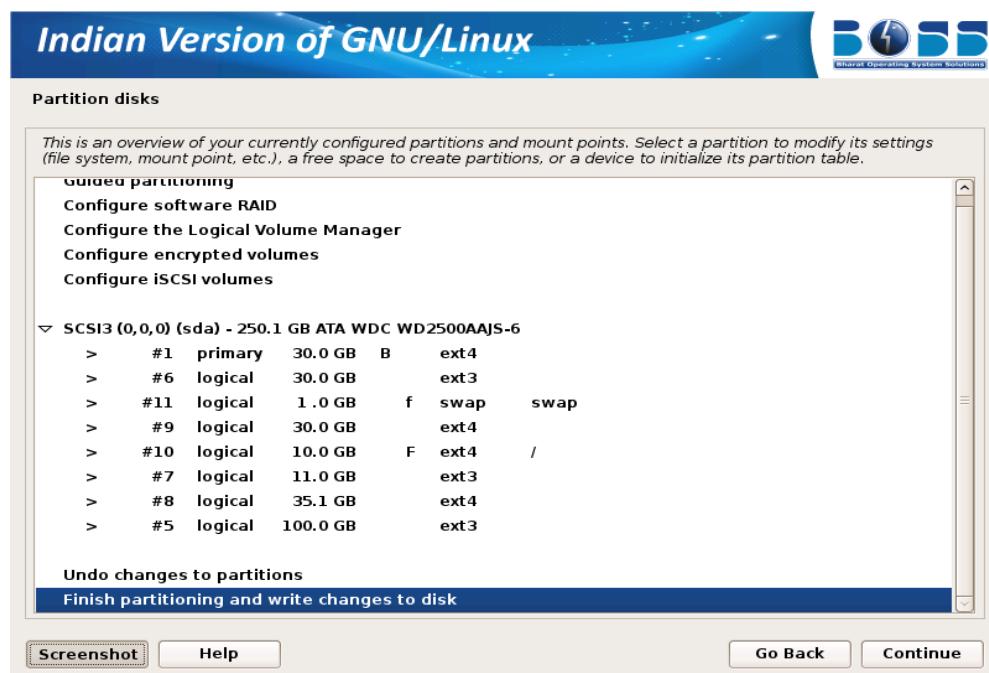


15. Creation of swap area is completed. Click “Done setting up the partition” and then click

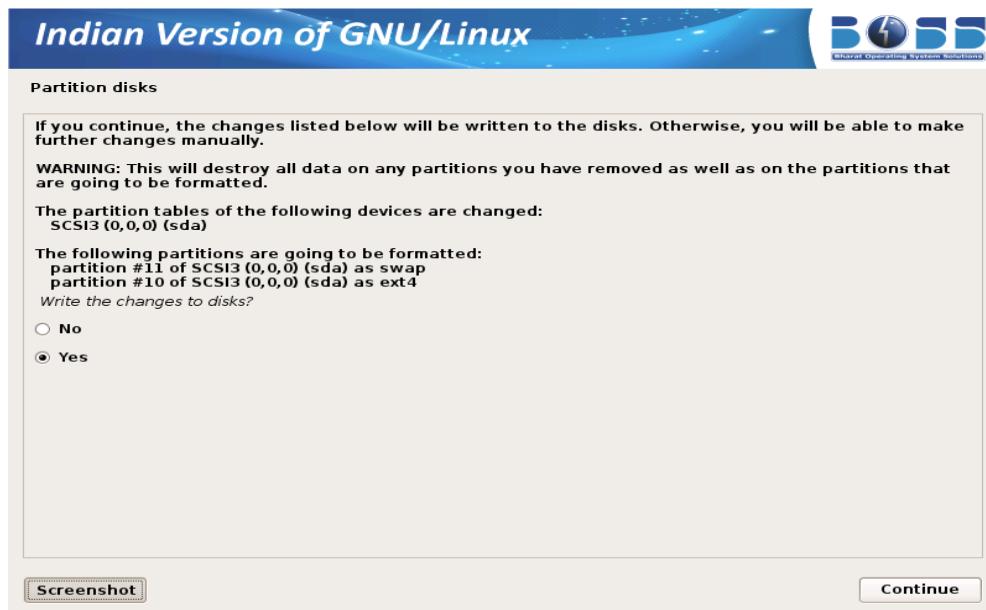
“Continue”



16. Finish the partitioning process.



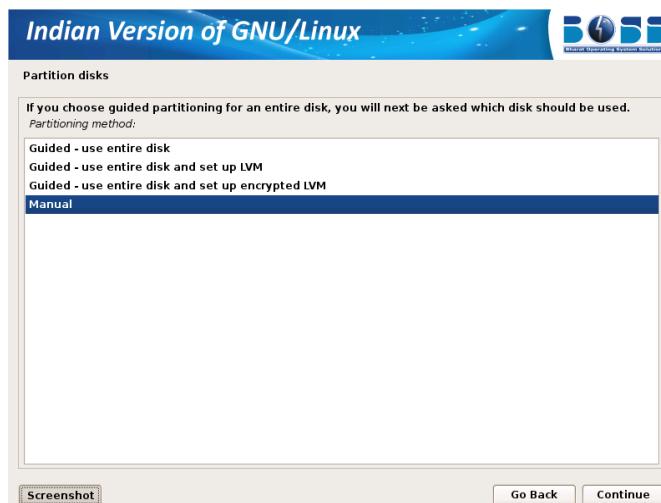
17. Write the changes to disk by clicking “Yes”.



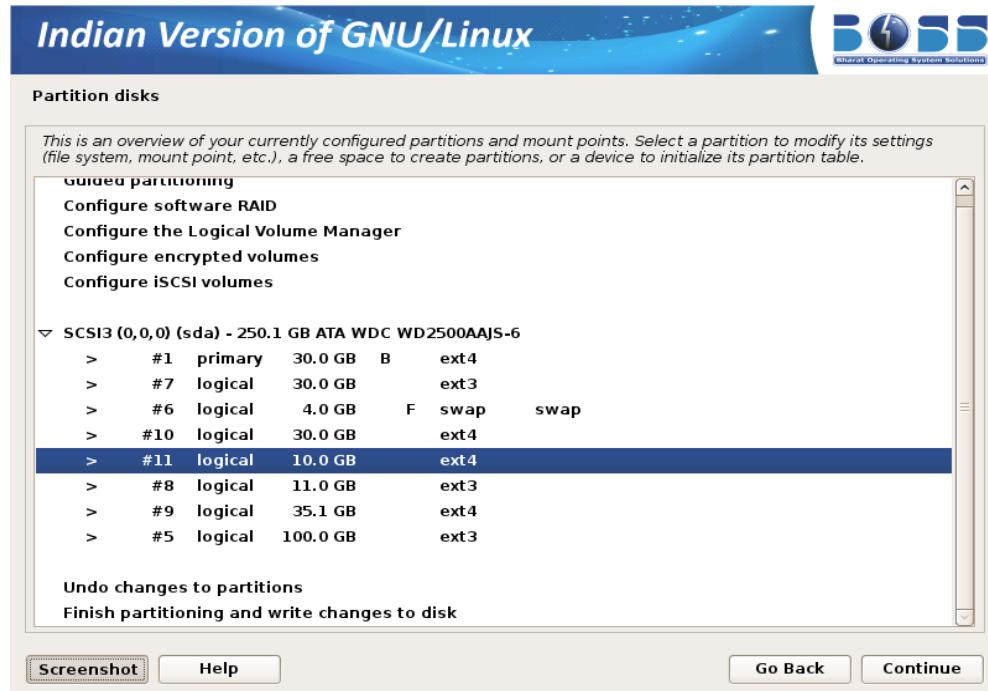
Deleting the hard disk partition

To partition manually , the following screen shots will help you setting up the partitioning separately for “/” and “swap”.

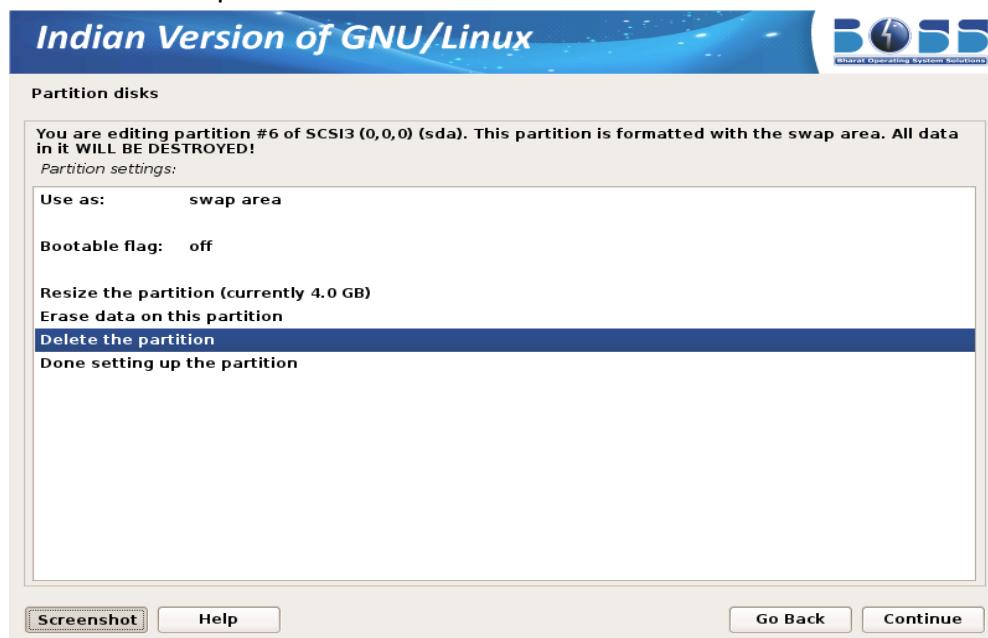
1. A screen with name “Partition disks” will be displayed. In that click on “Manual” and then click on “Continue.”
2. After clicking “Manual” a screen will be displayed which contains overview of your currently configured partitions and mount points.



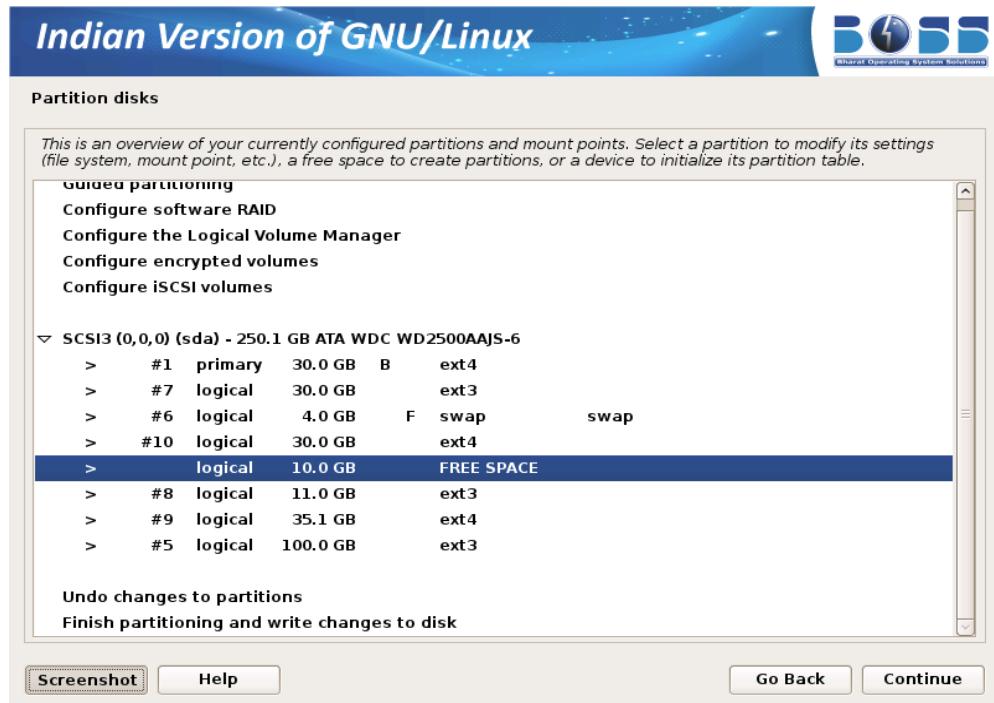
Then click on partition which you want to delete and then click “Continue”.



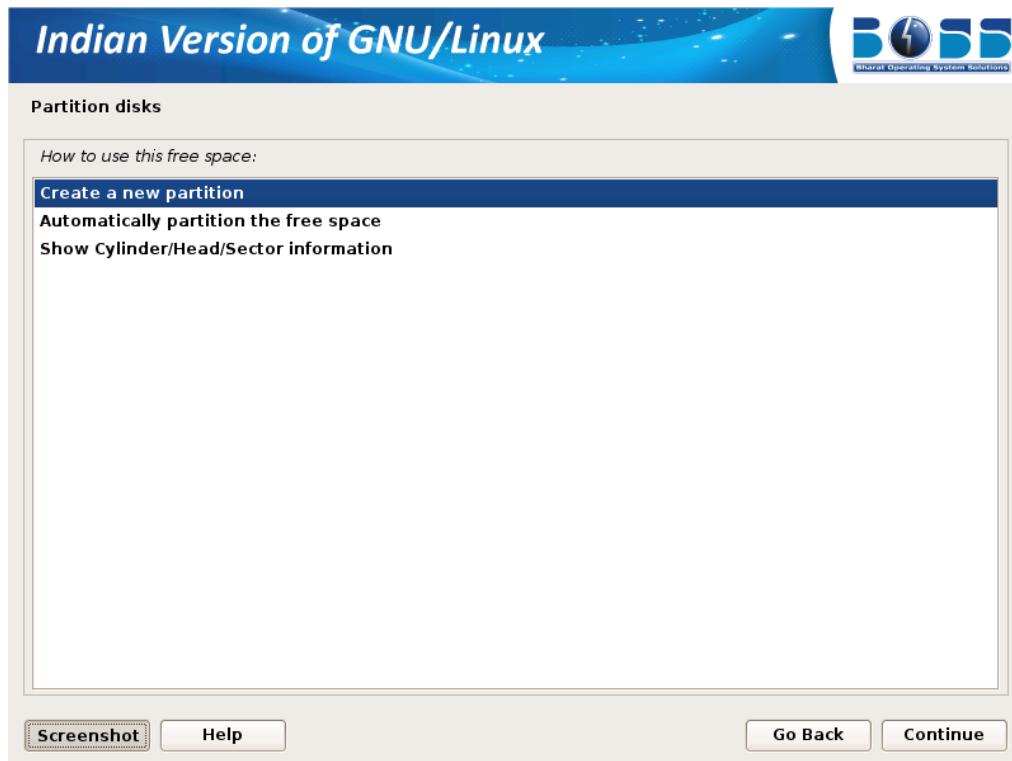
3. Click on “Delete the partition” and then click “Continue”.



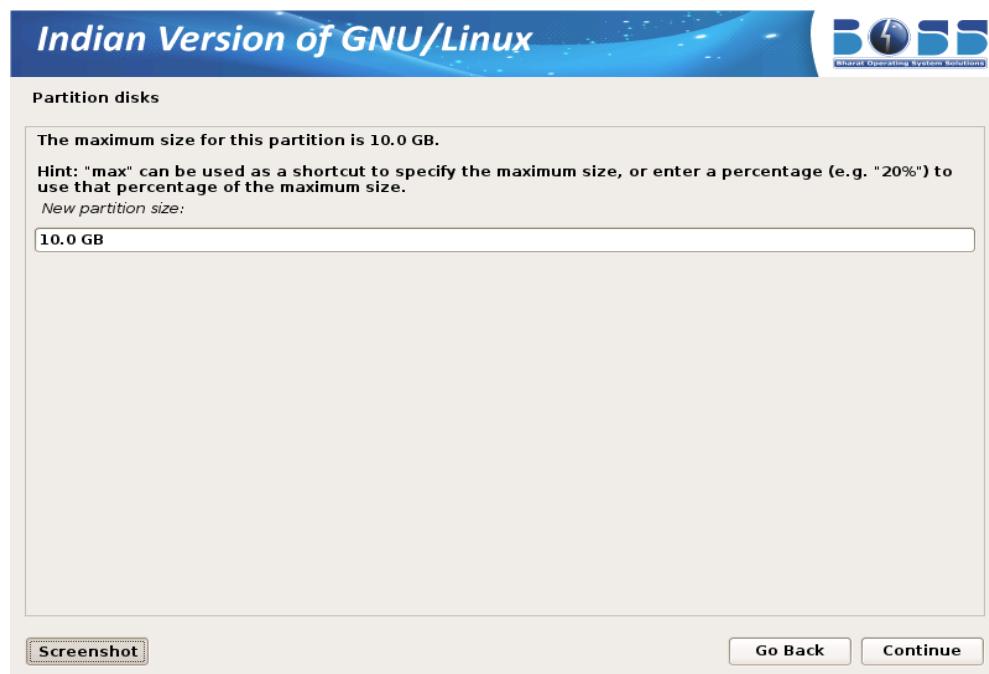
4. Once that partition is deleted you will get some free space.



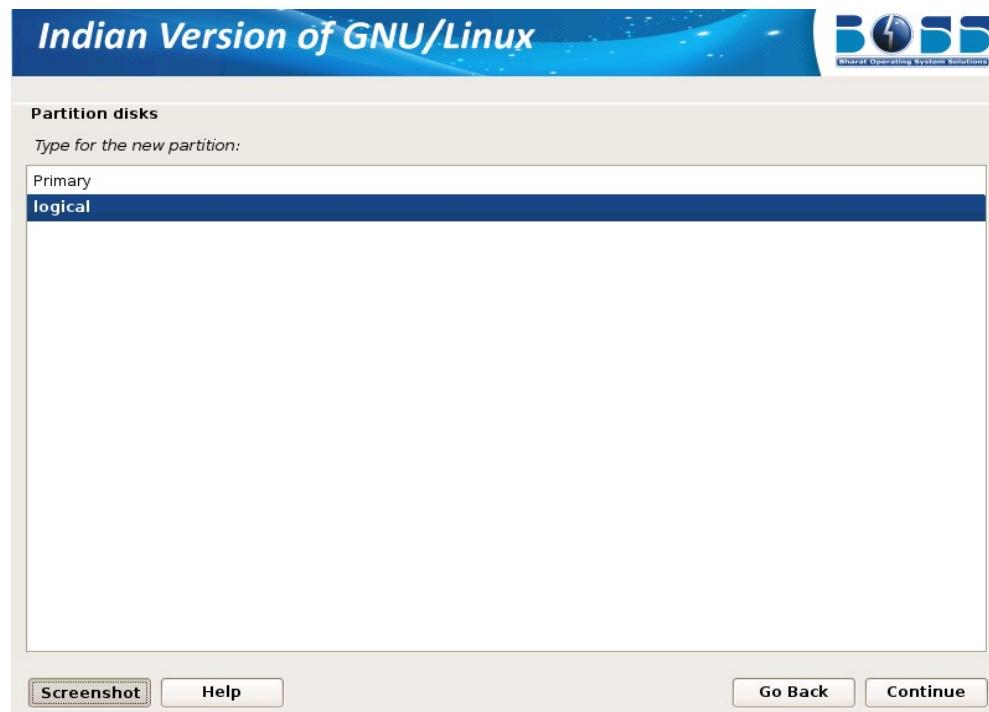
- To create a new partition using that free space double-click on “Create a new partition”.



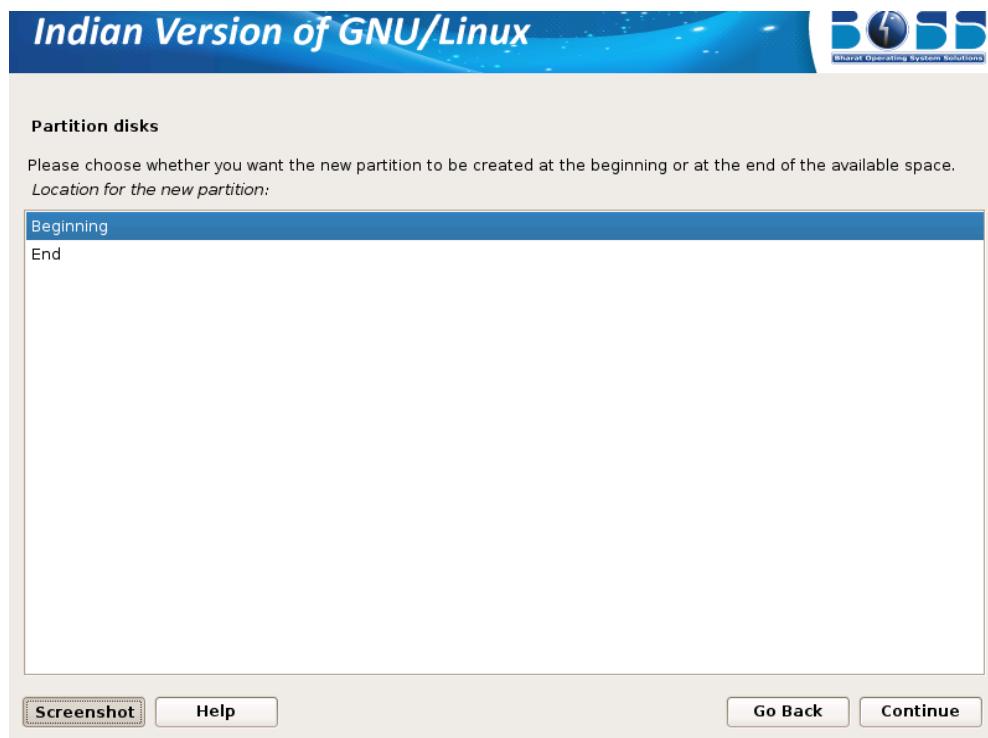
6. In the next screen specify the new partition size. The minimum size should be 10.0GB.



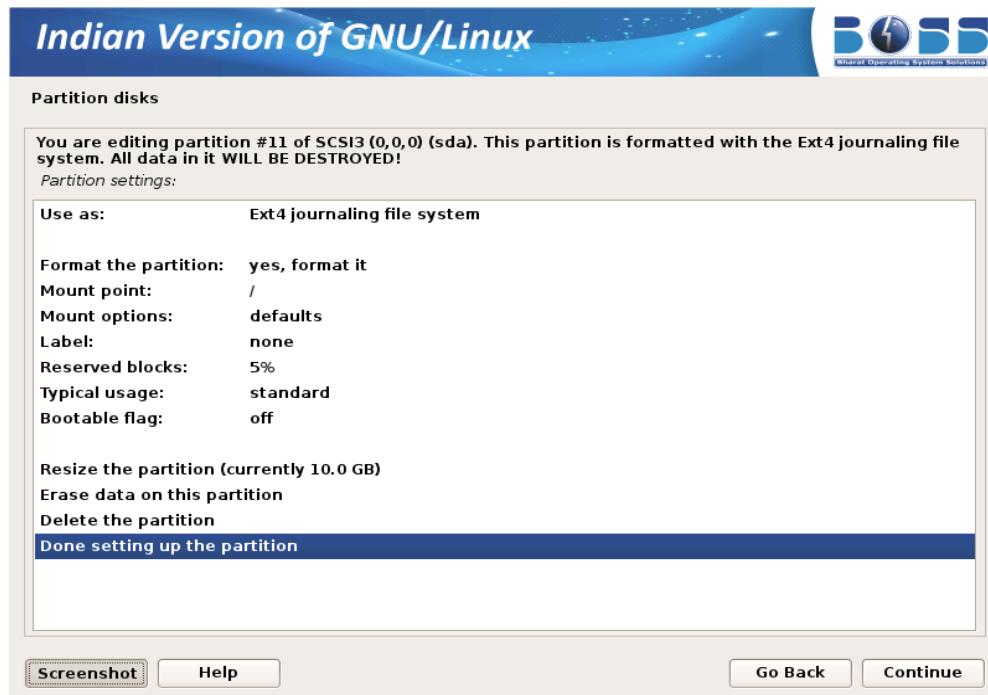
7. Select the type for the new partition.



8. Specify whether the partition should be at the beginning or at the End.

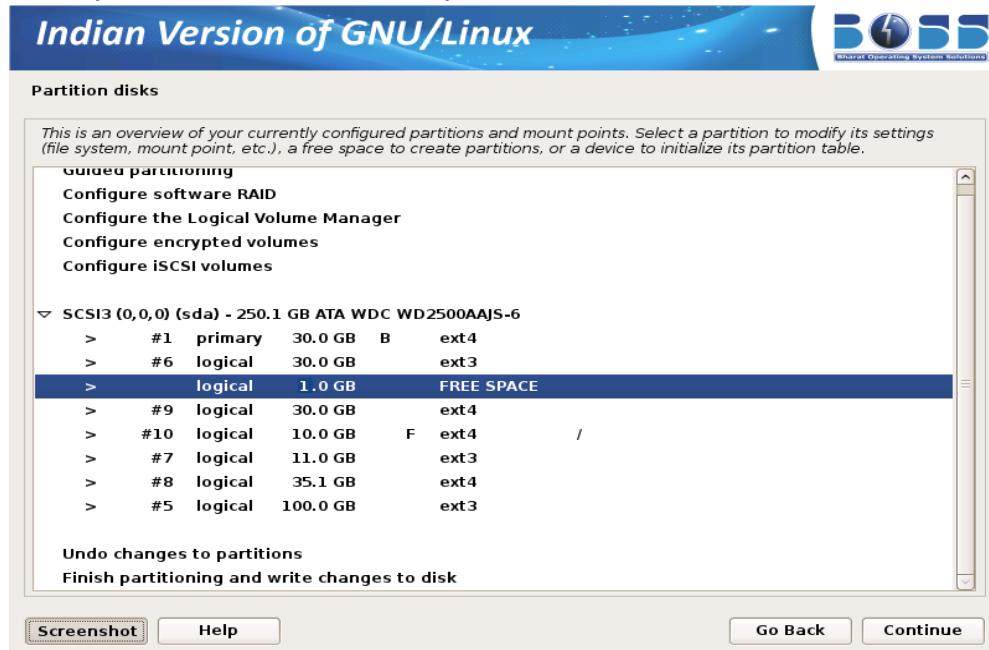


9. Click “Done setting up the partition” and then click “Continue”.

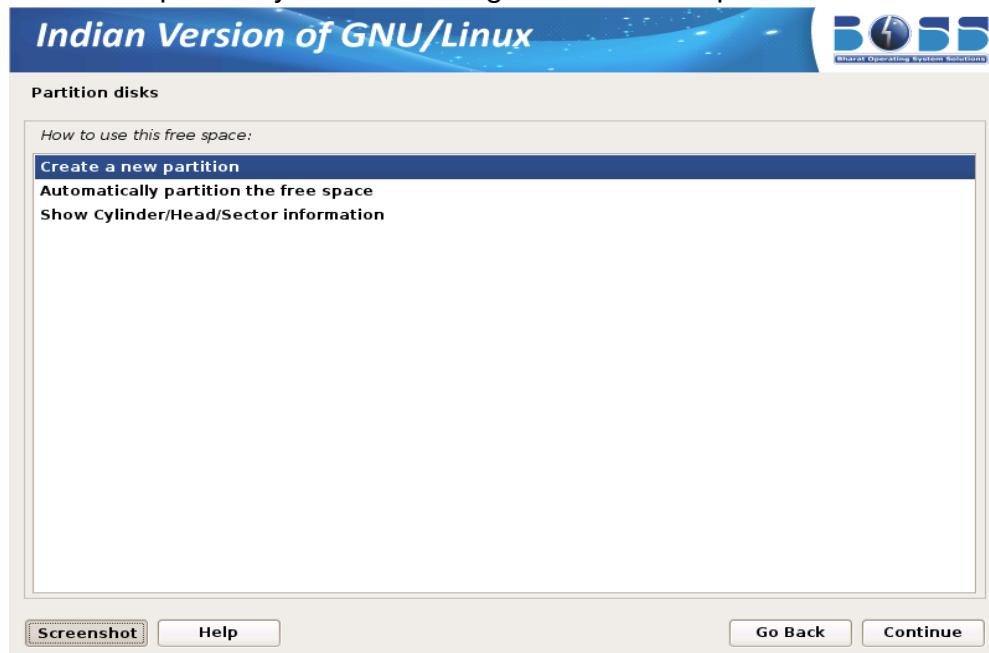


After selecting the partition for the “/”, you need to select a partition for the “swap” space. If you are already having Linux installed on your system then you will be having a swap space in your system. If so no need of another swap space. The swap should be double the RAM size. If there is no swap then create a new swap space. The screen shots are as follows:

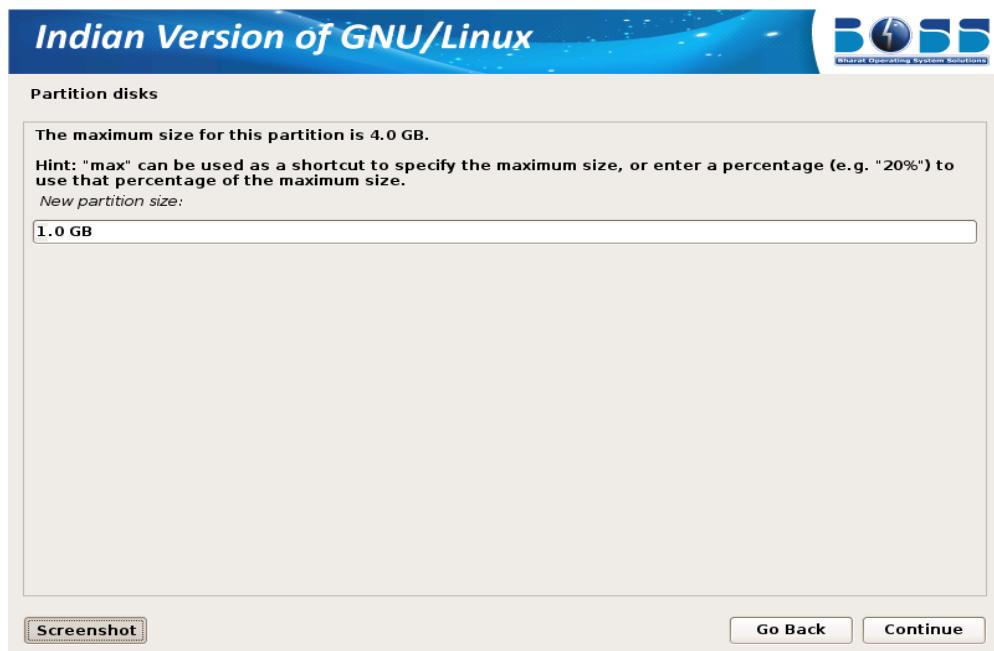
10. Create swap area of 1GB from free space



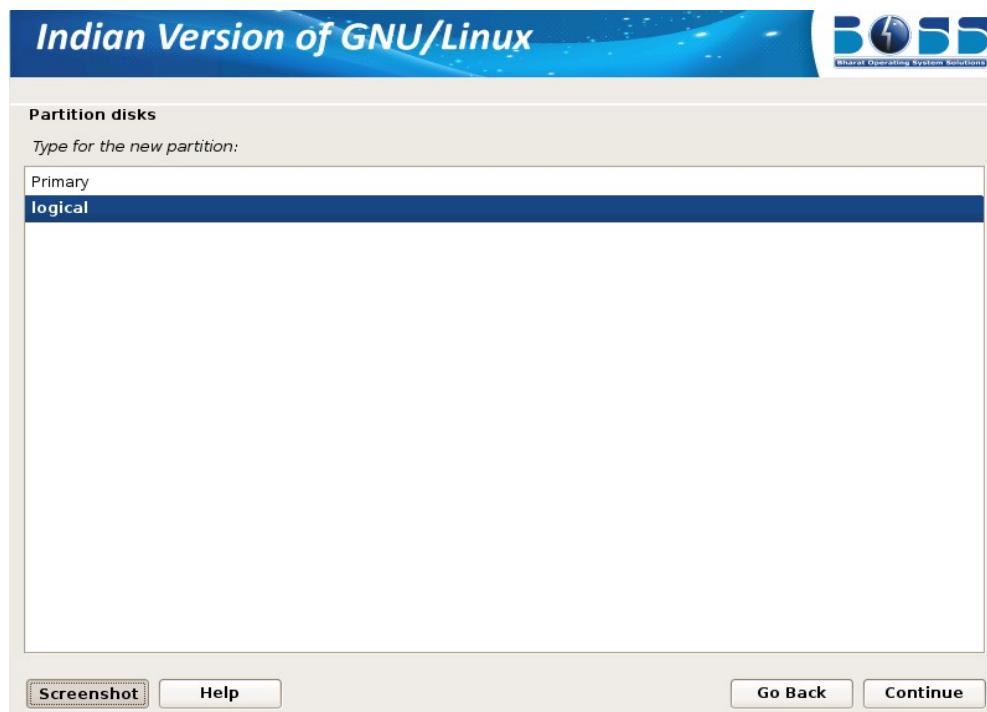
11. Create new swap area by double clicking “Create a new partition”.



12. Specify the partition size for swap area as 1.0 GB.

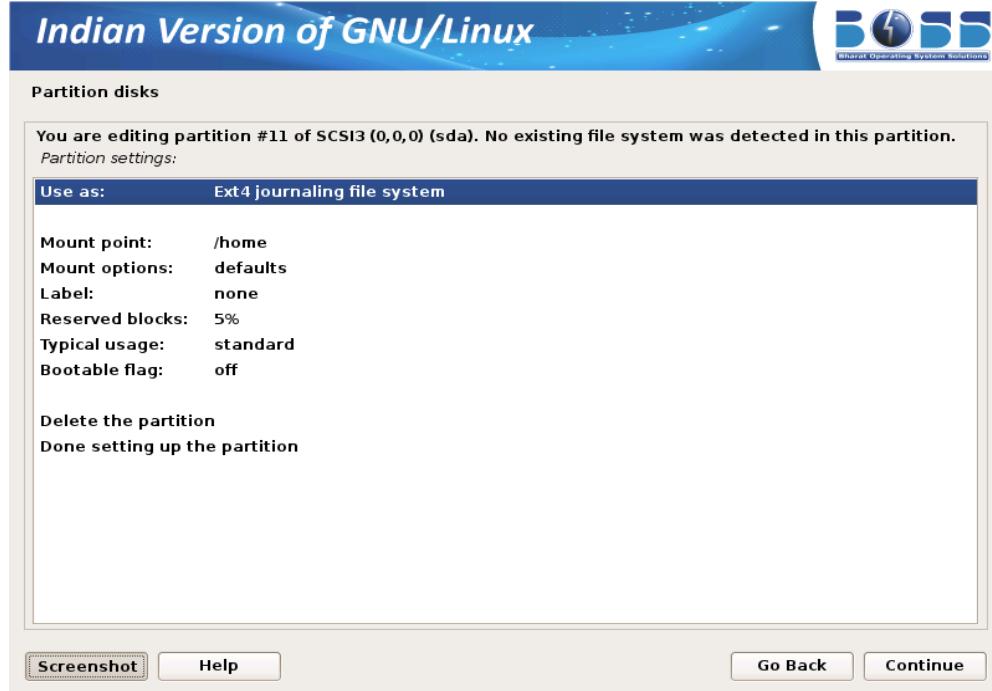


13. Select the type for the new partition.

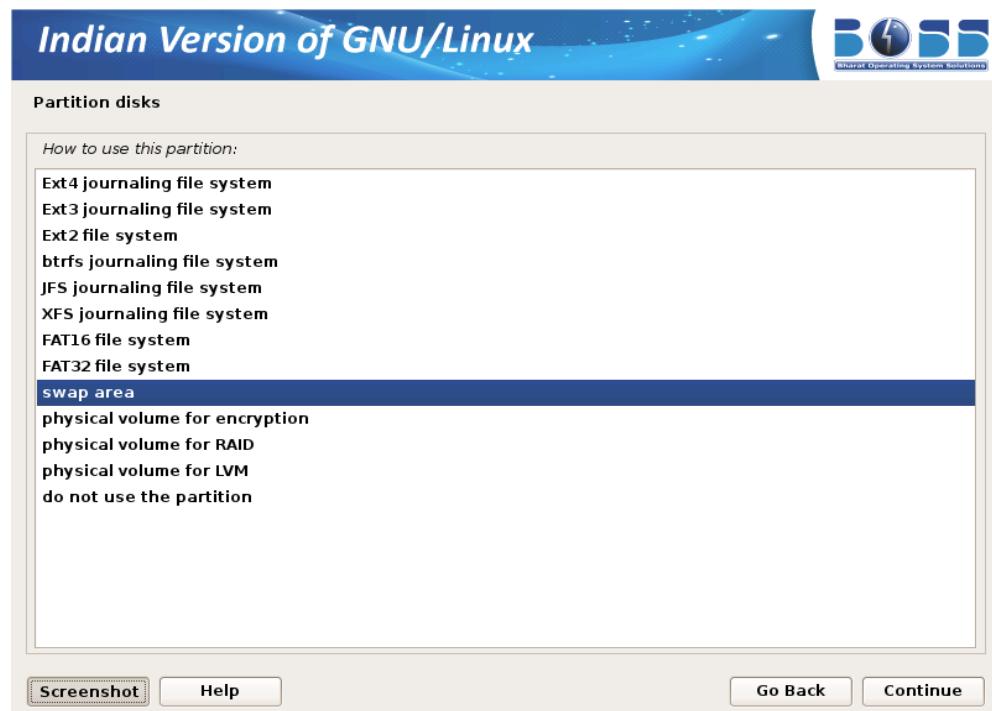


14. Specify whether the partition should be at the beginning or at the End.

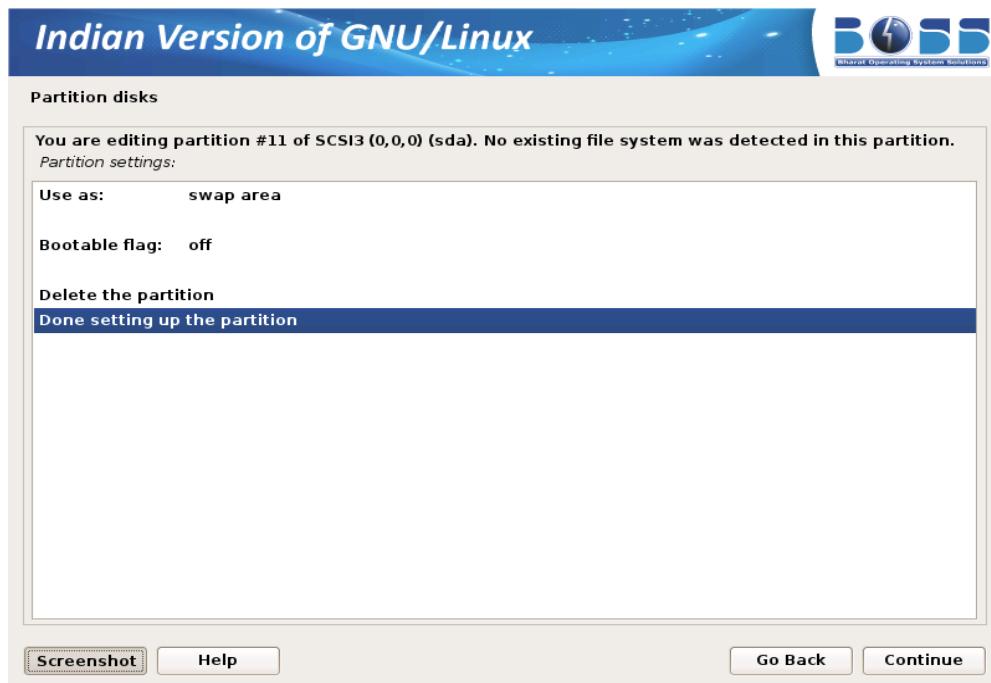
15. Change default file system ext3 to swap by double clicking “Ext3 journaling file system” in the screen shown below.



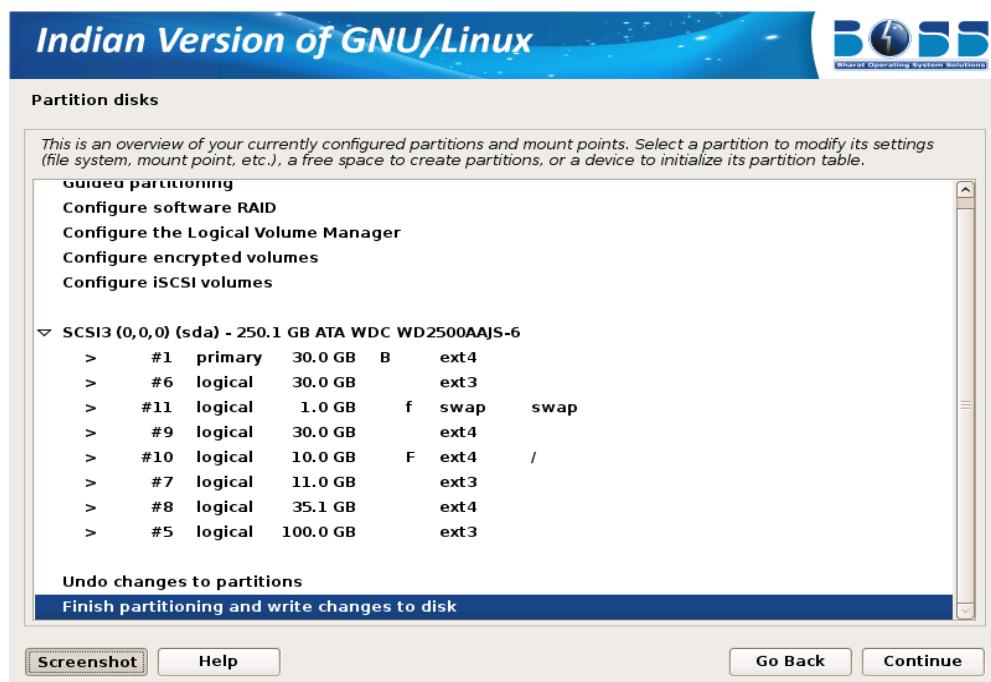
16. Double click on “swap area”.



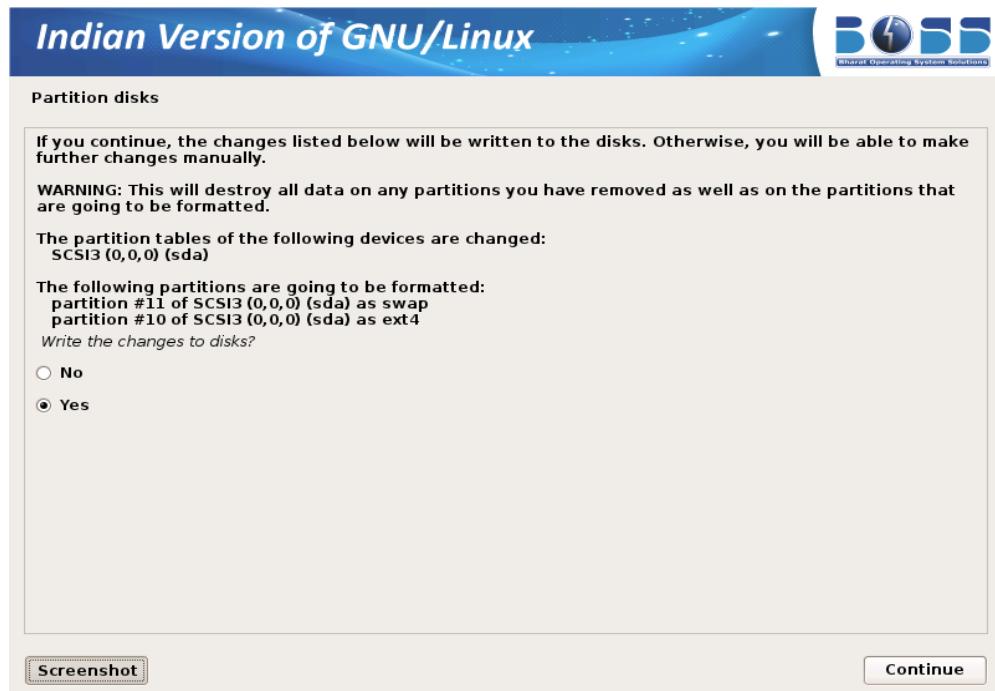
17. Creation of swap area is completed. Click on “Done setting up the partition” and then click “Continue”



18. Finish the partitioning process.



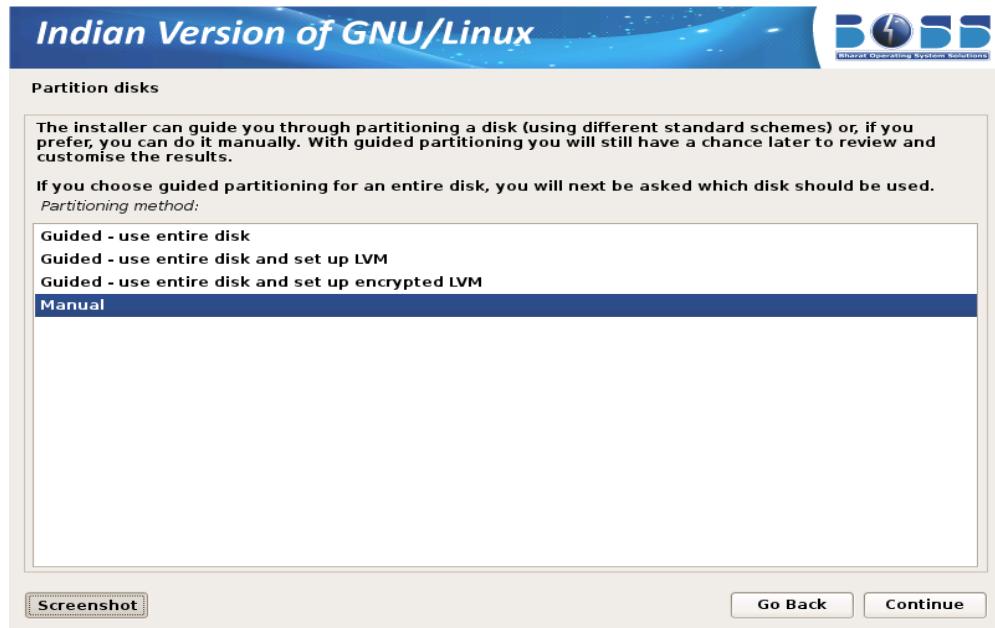
19. After all the partitions are allocated, you need to write the changes to disk. For this select “Yes” in in the following screen and then click “Continue”.



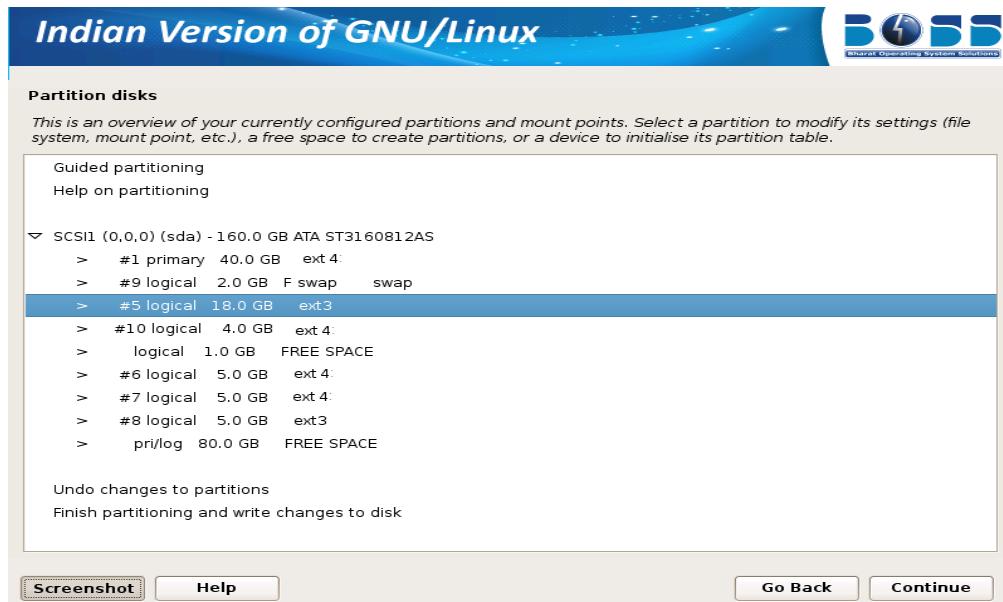
Resizing the Hard disk Partition

To resize hard disk partition at the time of installing BOSS GNU/Linux, follow these steps:

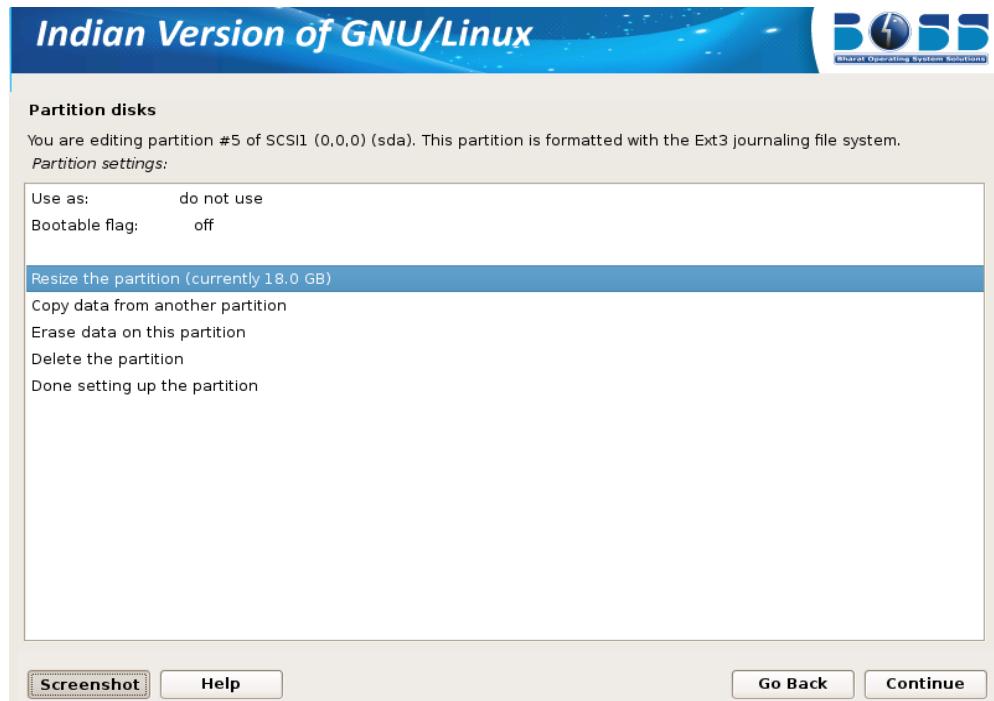
1. A screen with name “Partition disks” will be displayed. In that click “Manual” and then click “Continue.”



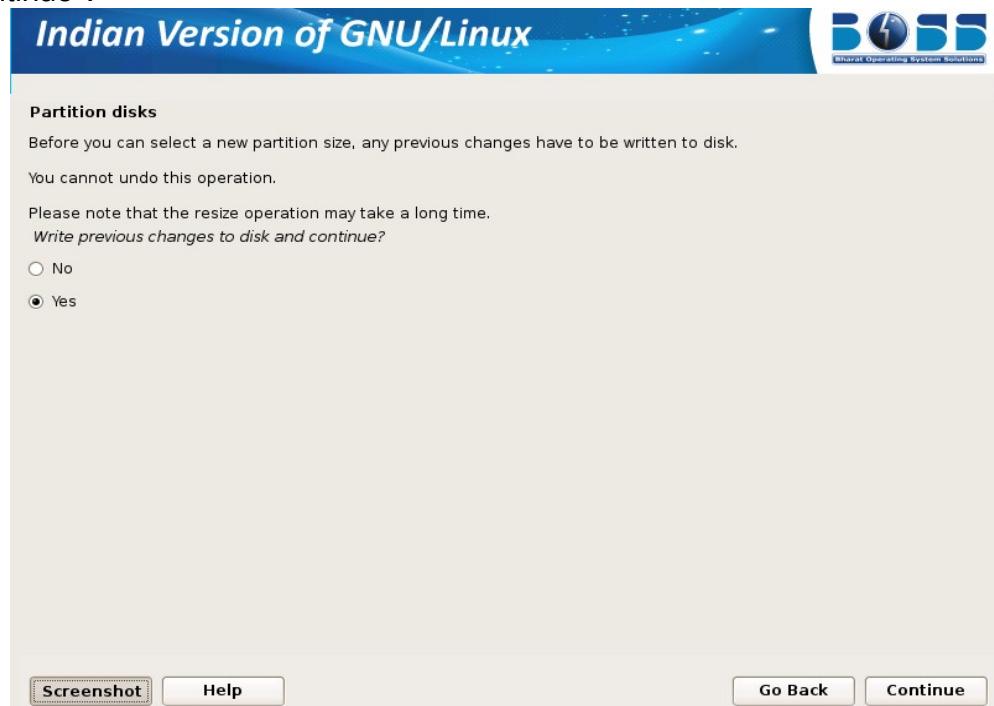
- After clicking “Manual” a screen will be displayed which contains overview of your currently configured partitions and mount points. Then click on the partition which you want to resize and then click “Continue”.



- Double click on “Resize the partition”.

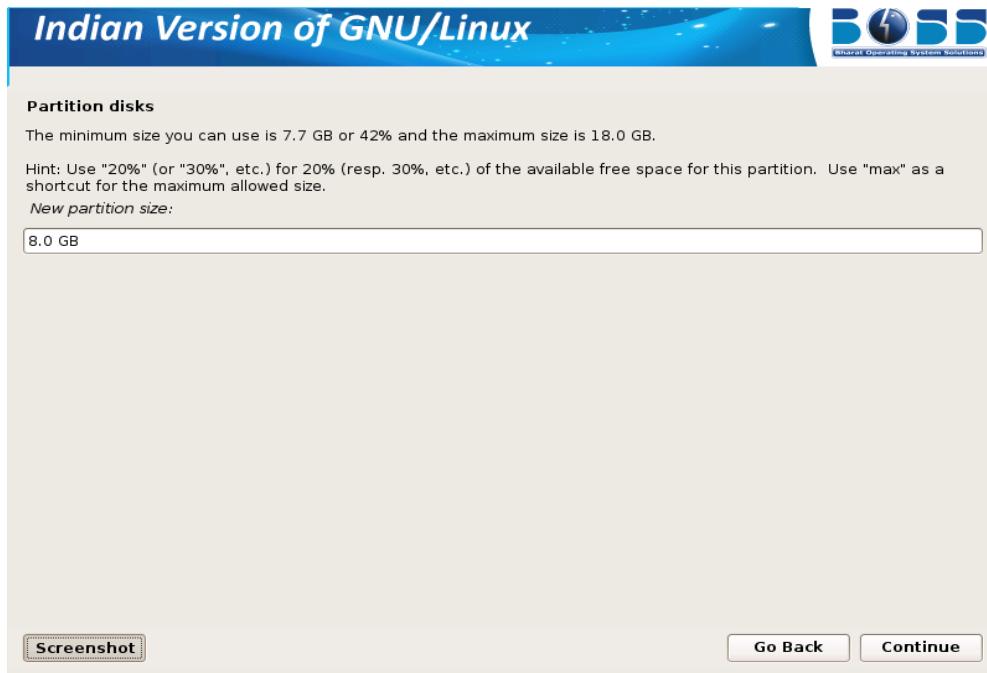


4. It will ask the confirmation before writing the changes to disk. Click “Yes” and then click “Continue”.

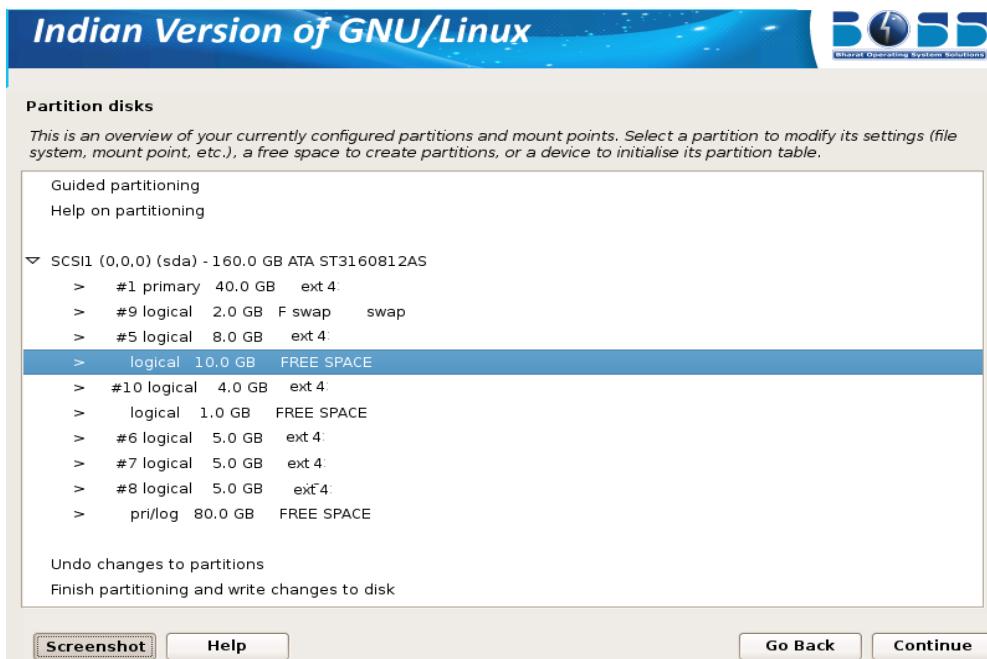


5. This screen will show by default maximum size as a new partition size which you can

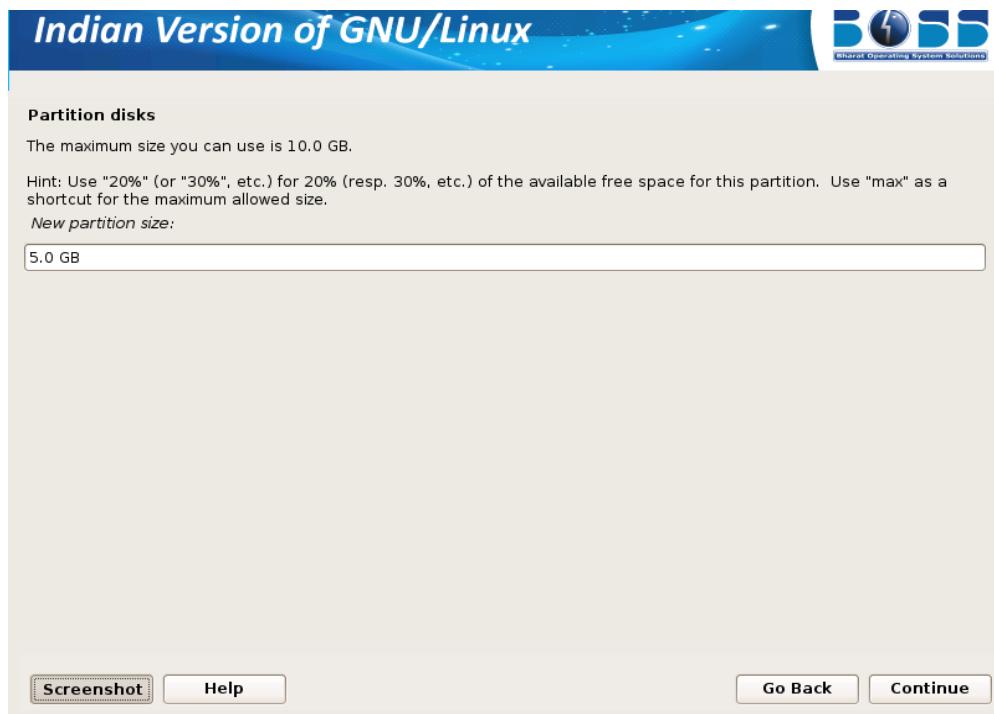
change as per requirement. You can give new partition size more than whatever required to that particular file system then click “Continue”.



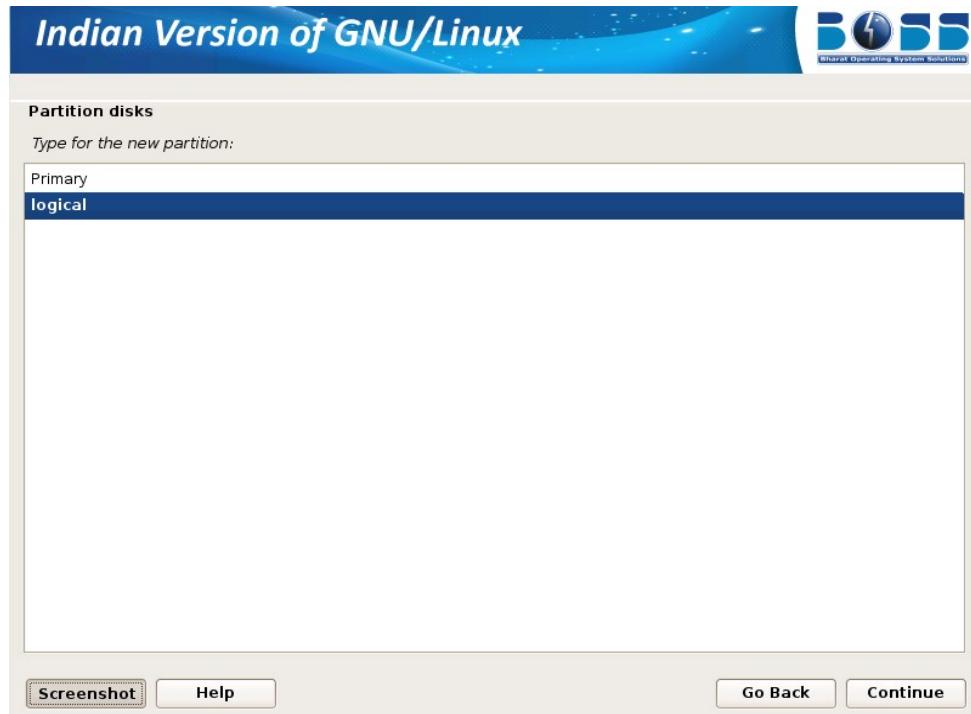
- Now you have done resizing. You will get some free space to install BOSS GNU/Linux. Click on free space.



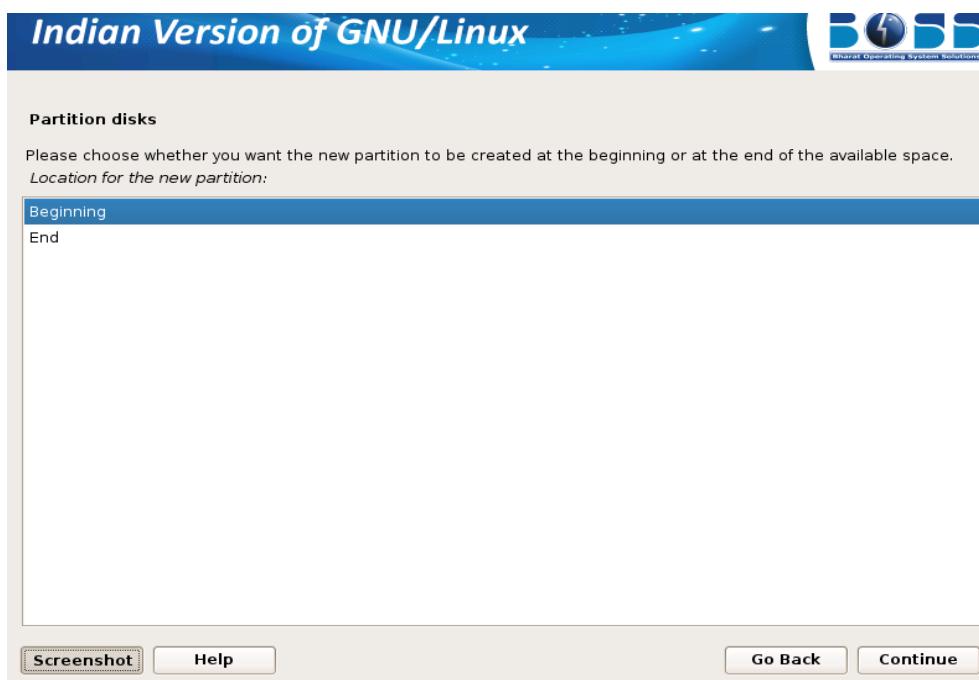
7. Create new partition for BOSS GNU/Linux by clicking “Create a new partition”.
8. Give partition size for installing BOSS GNU/Linux. It should be minimum 5.0 GB.



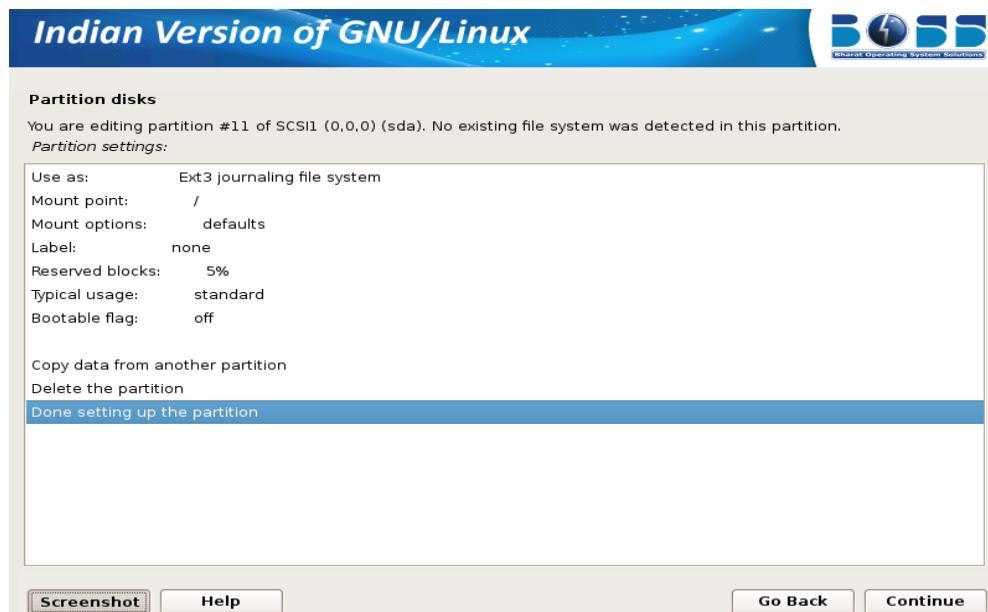
9. Select the type of partition.



10. Specify whether the partition should be at the beginning or end.

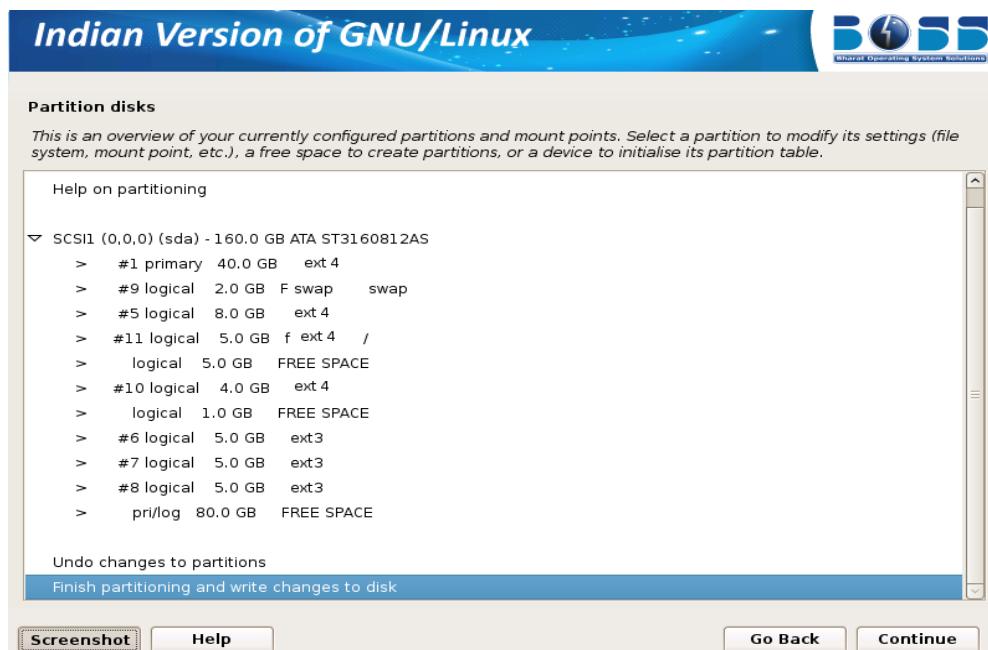


11. Partition setting is covered. Click “Done setting up the partition” and click “Continue”.



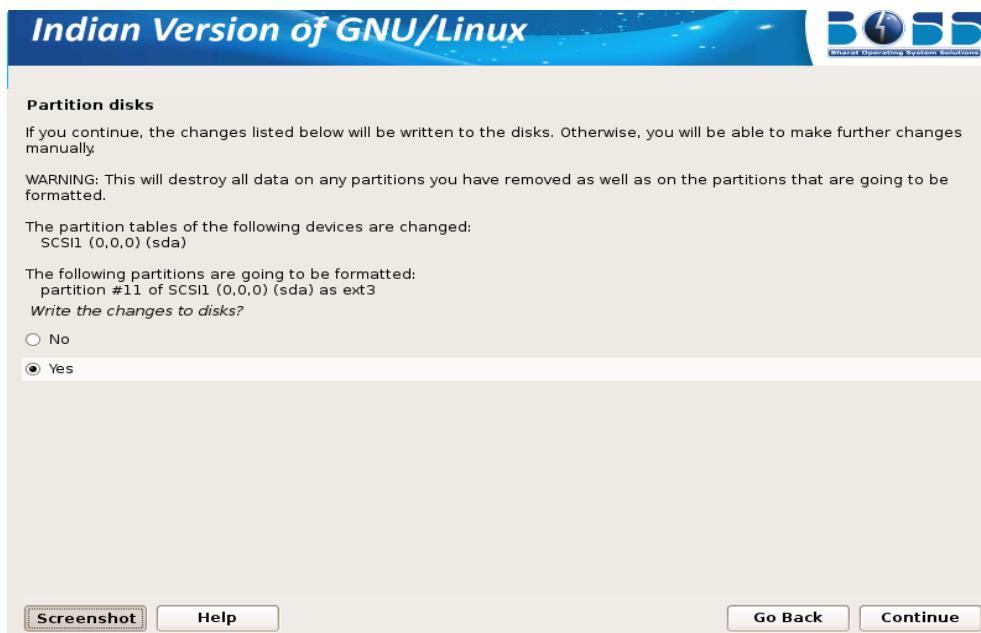
After selecting the partition for the “/”, you need to select a partition for the “swap” space. If you are already having Linux installed on your system then you will be having a swap space in your system. If so no need of another swap space. The swap should be double the RAM size. If there is no swap then create a new swap space by following the steps 8 to 15 in “Creating a new partition” section.

12. Finish the partitioning process.



13. After all the partitions are allocated, you need to write the changes to disk. For this select

“Yes” in in the following screen and then click “Continue”.



2.8 Installing the Base System

BOSS GNU/Linux is ready to install the packages into your system now.

2.9 Create User Account

Next step is to create a user account and setting password for the user. You can use this user account for logging into BOSS GNU/Linux. And this user will be used for auto login to BOSS GNU/Linux after certain time period.

The screen shots are as follows:

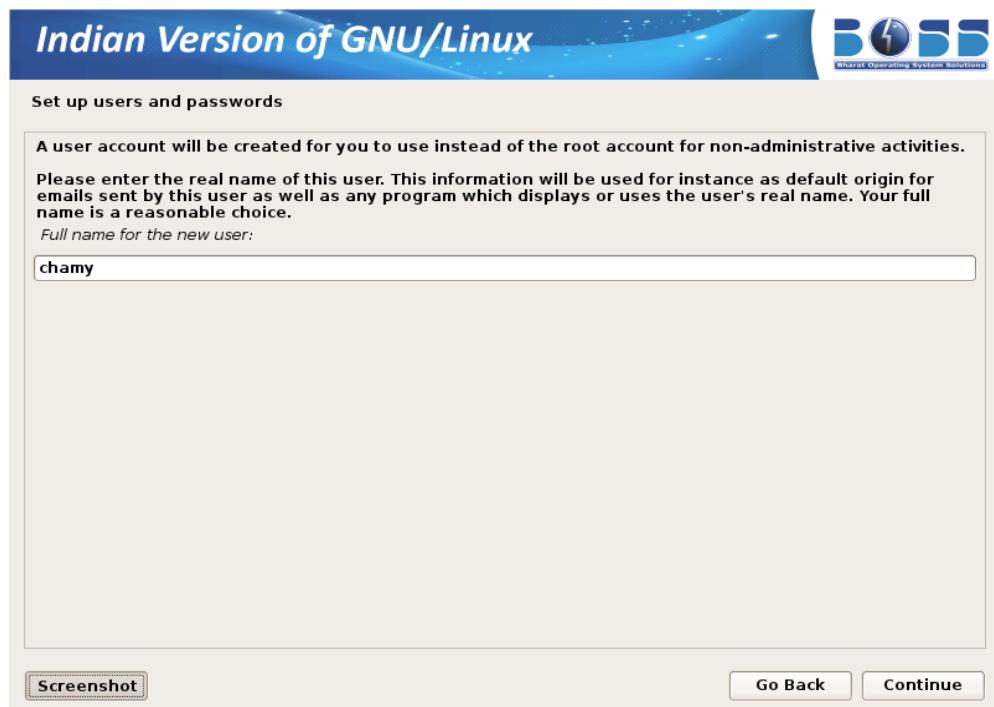


Figure 8. Set up user account



Figure 8.1 Set up user account's username

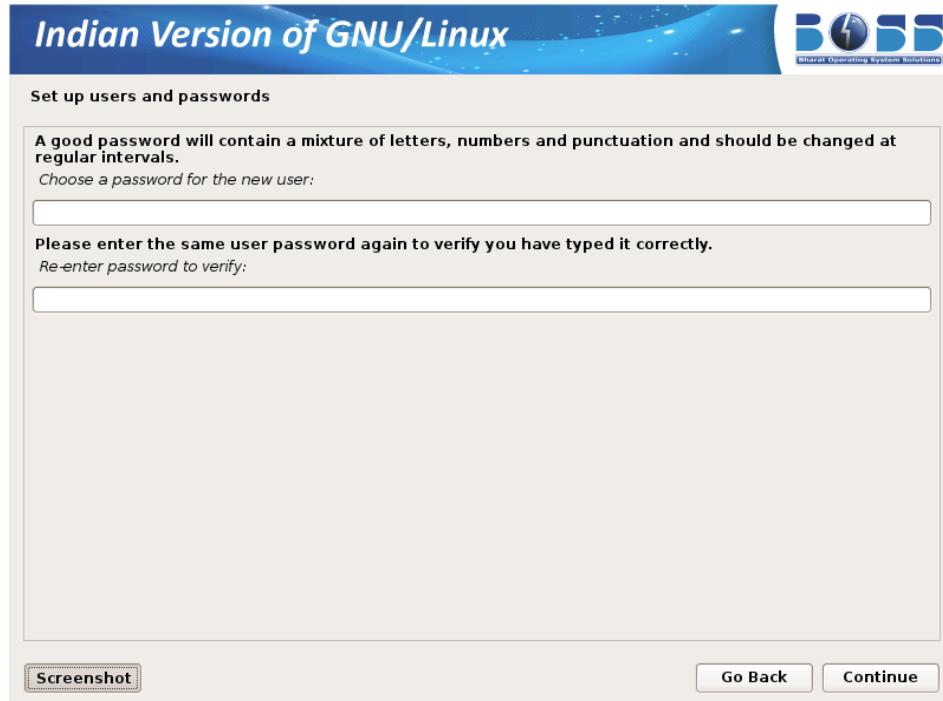
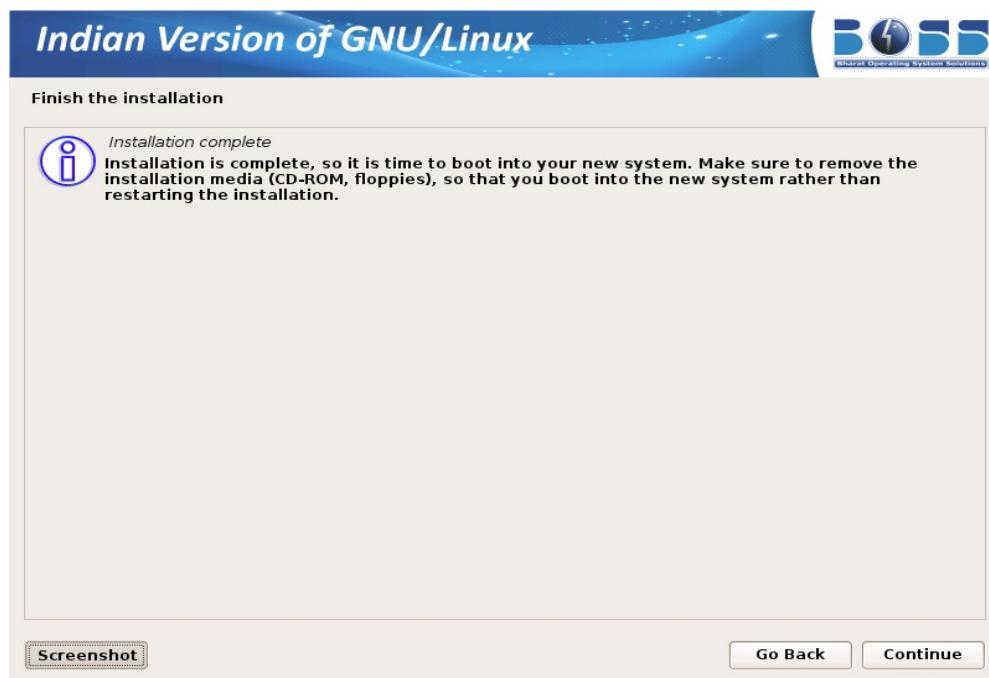
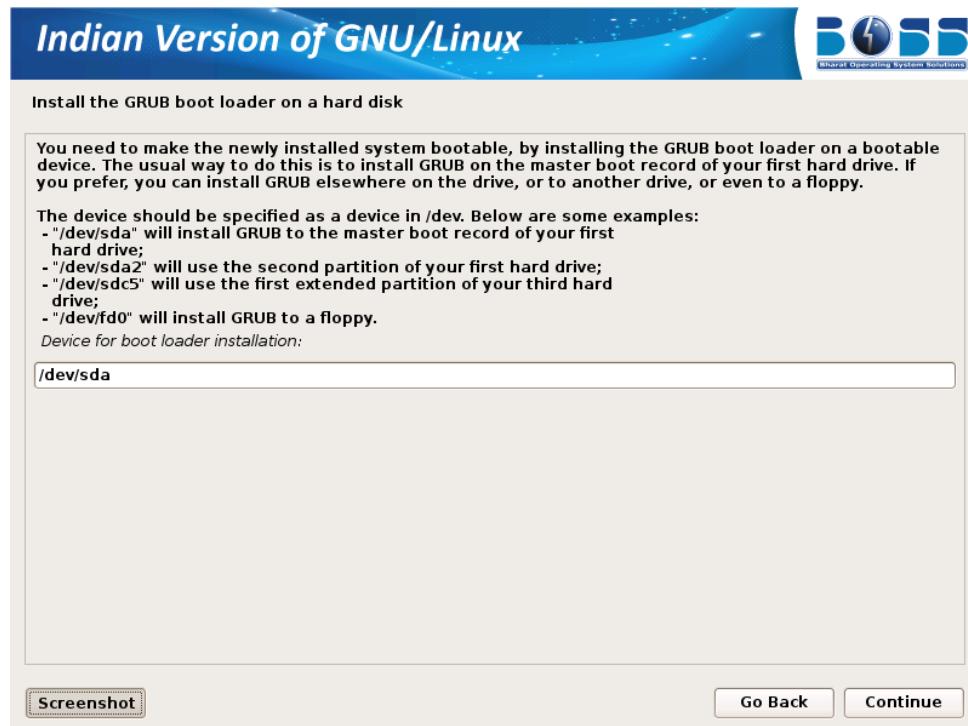


Figure 8.2 Set up user account's password

2.10 GRUB Installation



Once the installation process gets completed, the system restarts automatically.

3 GNOME Desktop

GNOME is a Graphical User Interface that has many applications designed to help you in your daily work.

3.1 Logging In and Selecting a Desktop

To start a normal login, just enter your username and password.

System

Performs a system action, such as shutting down the computer or starting different login actions.

3.1.1 Locking Your Screen

To lock the screen use the keyboard shortcut *Ctrl+Alt+L*.

3.2 Logging Out

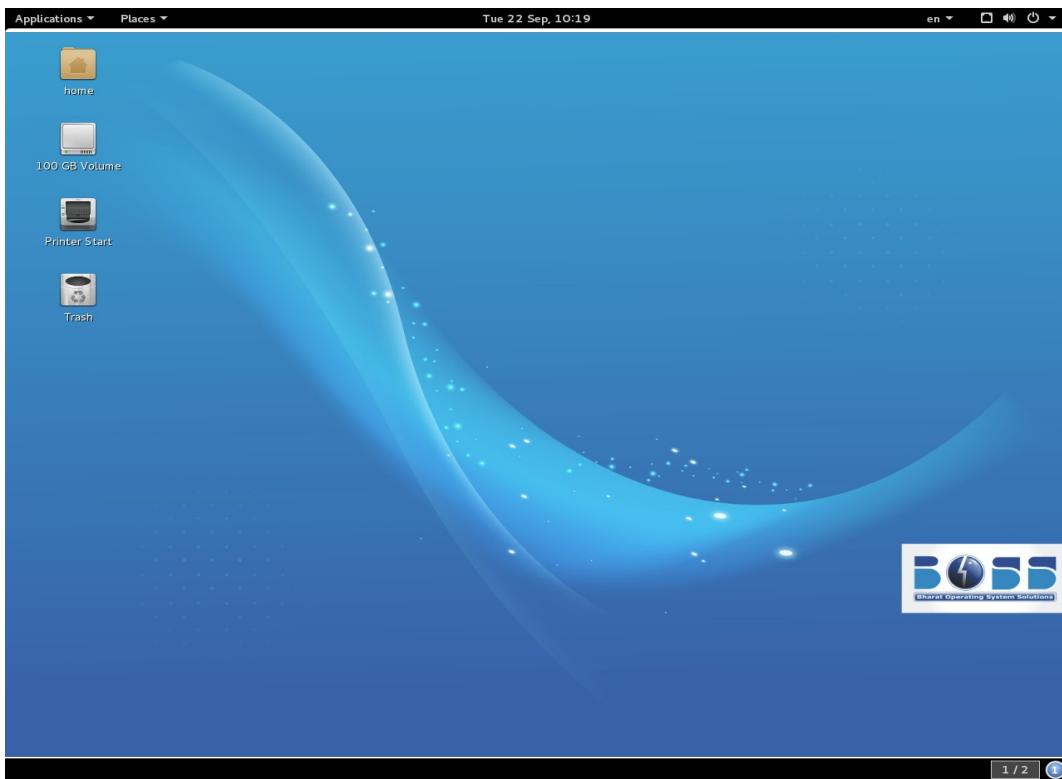
When you are finished using the computer, you can log out and leave the system running or restart or shut down the computer. If your system provides power management, you can also suspend the computer, making the next system start much faster than a complete boot.

To log out and leave the system running, do one of the following:

- Select **System -> Log Out....**
- Use the keyboard shortcut that is defined in the GNOME keyboard shortcuts. Usually, to log out with confirmation, this is *Ctrl+Alt+Del*.

3.3 Desktop Components

The main components of the desktop are the icons on the desktop and the panel at the top and bottom of the screen.



3.3.1 Desktop Icons

The desktop has the following icons by default:

Trash

Contains files and folders that have been deleted.

Computer

Displays information about hardware, network status, operating system, hard disks, common folders, and removable devices.

Home

Displays the files and folders in the home folder.

3.3.2 Panel

The panel is a bar, typically located at the top and bottom of the screen. It is designed to provide information about running applications or the system and easy access to some applications. If you hold your pointer over an icon on the panel, a short description is displayed.

Top Panel

The top panel typically consists of the following items:

Menu Bar

By default, Menu Bar appears at the left end of the panel. The Menu Bar has a well-ordered structure for accessing the main applications. It also contains menu items for major functions like logging out or searching for applications.

The following icons by default appears in the right side of the top panel

Notification Area

The notification icons like Update Manager, SCIM appears in the notification area.

Clock

The clock icon displays the current date and time.

Volume Control

The Volume Control icon is useful for controlling the speaker volume.

Window Selector

This icon when clicked displays the applications running on different windows.

Bottom Panel

The bottom panel consists of the following items:

Show Desktop

This icon appears at the left side of the bottom panel. Click that icon to hide all the windows and show the desktop.

Window List

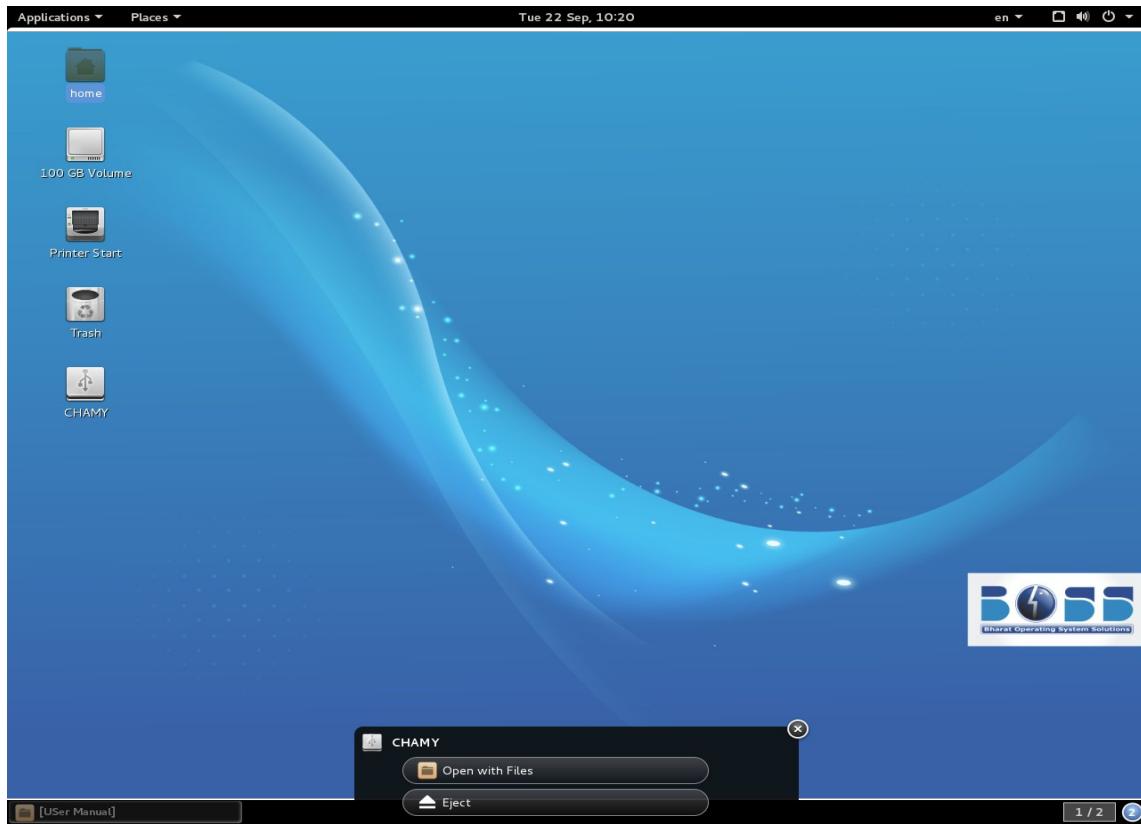
The Window List is located next to the “Show Desktop” icon. By default, all started applications and open windows are displayed in the Window List, which allows you to access any application regardless of the currently active desktop. If you click a window title in the Window List, the application is moved to the foreground. If it is already in the foreground, clicking minimizes the application.

Workspace Switcher

By default, the right end of the bottom panel has an icon which shows your different desktops. These virtual desktops enable you to organize your work. If you use many programs simultaneously, you might want to run some programs in one desktop and other programs in the other desktop. To switch between desktops, click the desktop symbol in the panel.

3.4 Handling Removable Media

If you insert or connect removable media to your computer (such as CD-ROMs or USB sticks), these are usually mounted automatically.



3.4.1 Removing Media Safely

If you want to remove or disconnect a medium from your computer, make sure that the data on the medium is currently not accessed by any application or user. Otherwise, you risk a loss of data.

To safely remove the medium right-click the medium to remove and select “Safely Remove” or “Eject”. “Safely Remove” unmounts the medium after which you can disconnect the medium from your computer. “Eject” automatically opens the CD or DVD drive of your computer.

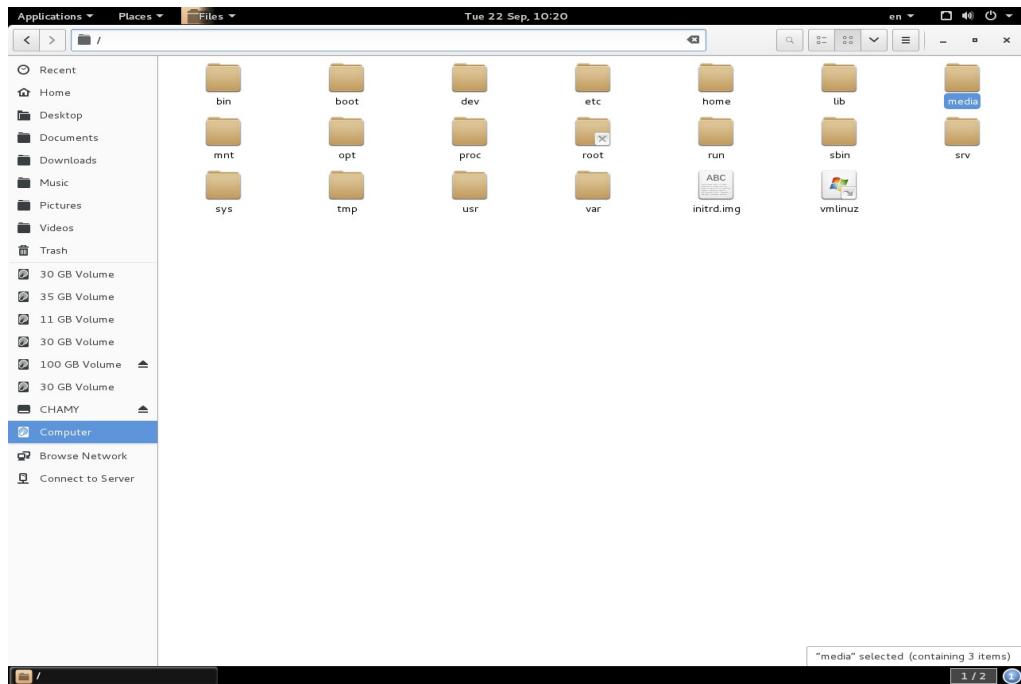
3.5 Managing Trash

The trash is a directory for files marked for deletion. Drag icons from the file manager or the desktop to the trash icon by keeping the left mouse button pressed. Then release to drop them there. Alternatively, right-click an icon and select “Move to Trash” from the menu. Double-click the trash icon to view its contents. You can retrieve an item from the trash if desired.

Files removed with *Shift+Delete* are not moved to the trash bin, but deleted completely. To delete the files in the trash bin completely, right-click the trash bin icon then click “Empty Trash”.

3.6 Managing Folders and Files with Nautilus

Nautilus is a file manager. The following sections cover using Nautilus for file management.



3.6.1 File Manager Functionality

The Nautilus file manager provides a simple and integrated way to manage your files and applications. You can use the file manager to do the following:

- Create folders and documents
- Display your files and folders
- Search and manage your files
- Run scripts and launch applications
- Customize the appearance of files and folders
- Open special locations on your computer
- Write data to a CD or DVD
- Install and remove fonts

The file manager lets you organize your files into folders. Folders can contain files and may also contain other folders. Using folders can help you find your files more easily.

Nautilus also manages the desktop. The desktop lies behind all other visible items on your

screen. The desktop is an active component of the way you use your computer.

Every user has a Home Folder. The Home Folder contains all of the user's files. The desktop is another folder. The desktop contains special icons allowing easy access to the users Home Folder, Trash, and also removable media such as floppy disks, CDs and USB flash drives.

Nautilus is always running while you are using GNOME. To open a new Nautilus window, double-click on an appropriate icon on the desktop such as "Home" or "Computer", or choose an item from "Places" menu on the top panel.

In GNOME many things are files, such as word processor documents, spreadsheets, photos, movies, and music.

3.6.2 File Manager Presentation

Nautilus provides two modes in which you can interact with your filesystem: spatial and browser mode. You may decide which method you prefer and set Nautilus to always use this by selecting (deselecting) "Always open in browser windows" in the "Behavior" tab of the Nautilus preferences dialog.

The following explains the difference between the two modes:

Browser mode: browse your files and folders

The file manager window represents a browser, which can display any location. Opening a folder updates the current file manager window to show the contents of the new folder.

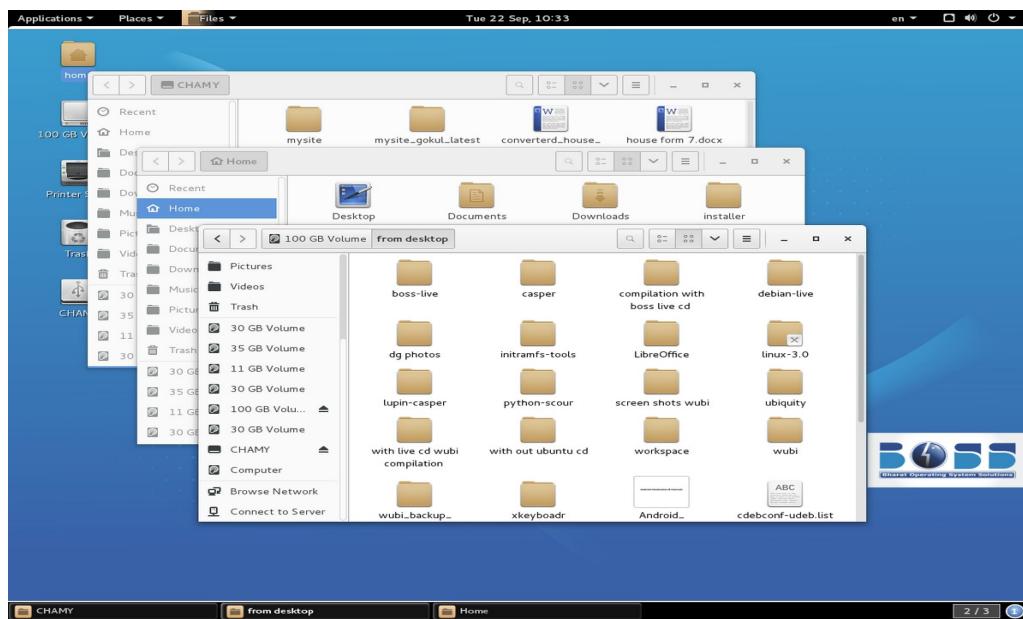
The browser window displays a toolbar with common actions and locations, a location bar that shows the current location in the hierarchy of folders, and a sidebar that can hold different kinds of information.

In Browser Mode, you typically have fewer file manager windows open at a time.

Spatial mode: navigate your files and folders as objects

The file manager window represents a particular folder. Opening a folder opens the new window for that folder. Each time you open a particular folder, you will find its window displayed in the same place on the screen and the same size as the last time you viewed it (this is the reason for the name 'spatial mode').

Using spatial mode may lead to more open file manager windows on the screen.



3.6.3 File Browser Window Components

The nautilus file browser window consists of the following elements:

Menu Bar

You can also open a popup menu from file manager windows. To open this popup menu right-click in a file manager window. The items in this menu depend on where you right-click. For example, when you right-click on a file or folder, you can choose items related to the file or folder. When you right-click on the background of a view pane, you can choose items related to the display of items in the view pane.

Toolbar

Contains buttons that you use to perform tasks in the file manager.

- Back - returns to the previously visited location. The adjacent drop down list also contains a list of the most recently visited locations to allow you to return to them faster.
- Forward - performs the opposite function to the “Back” toolbar item. If you have previously navigated back in time then this button returns you to the present.
- Up - moves up one level to the parent of the current folder.
- Reload - refreshes the contents of the current folder.
- Home - opens your Home Folder.
- Computer - opens your Computer folder.
- Search - opens the search bar.

Location Bar

The location bar is a very powerful tool for navigating your computer.

- Zoom buttons - Enable you to change the size of items in the view pane.
- View as drop-down list - Enables you to choose how to show items in your view pane.

Side Pane

Performs the following functions:

- Shows information about the current file or folder.
- Enables you to navigate through your files.

To display the side pane, choose **View -> Side Pane**. The side pane contains a drop-down list that enables you to choose what to show in the side pane. You can choose from the following options:

- Places - Displays places of particular interest.
- Information - Displays the icon and information about the current folder.
- Tree - Displays a hierarchical representation of your file system. You can use the Tree to navigate through your files.
- History - Contains a history list of files, folders, FTP sites, and URLs that you have recently visited.
- Notes - Enables you to add notes to your files and folders.
- Emblems - Contains emblems that you can add to a file or folder.

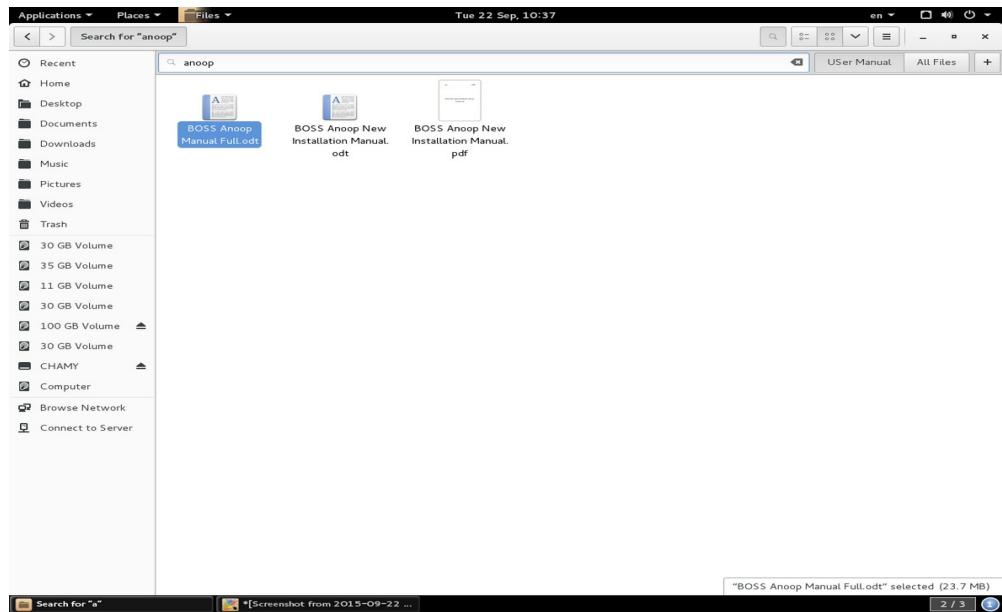
To close the side pane, click on the “X” button at the top right of the side pane.

3.6.4 Searching For Files

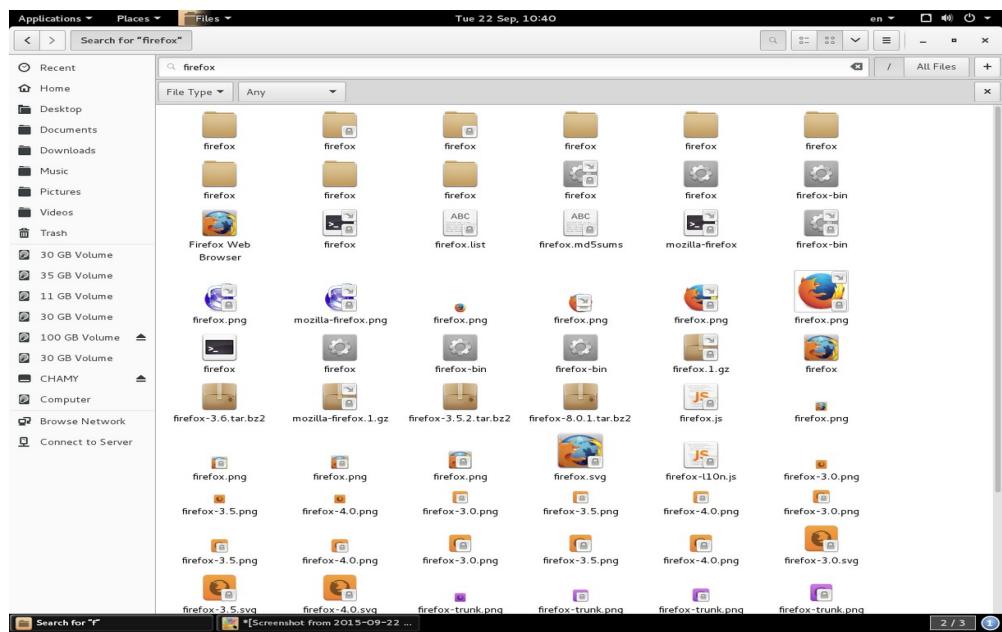
The Nautilus file manager includes an easy and simple to use way to search for your files and folders. To begin a search press *Ctrl+F* or select the “Search” toolbar button.



Enter characters present in the name or contents of the file or folder you wish to find and press *Enter*. The results of your search should appear in the view pane.

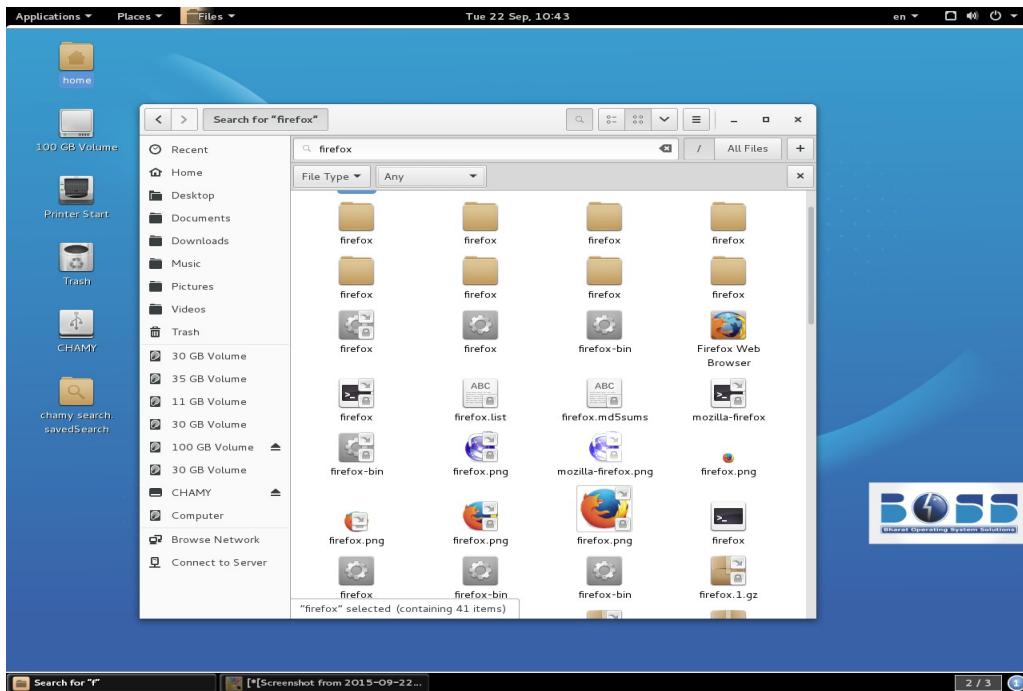


If you are not happy with your search you can refine it by adding additional conditions. This allows you to restrict the search to a specific file type or location. To add search conditions click the “+” icon.



Saving Searches

Nautilus searches can also be saved for future use. Once saved, searches may be reopened later.



Saved searches behave exactly like regular folders, for example you can open, move or delete files from within a saved search.

3.6.5 Using Views to Display Your Files and Folders

The file manager includes views that enable you to show the contents of your folders in different ways, icon view, and list view.

- Icon view - Shows the items in the folder as icons.
- List view - Shows the items in the folder as a list.

3.6.6 Moving a File or Folder

You can move a file or folder by dragging it with the mouse, or with the cut and paste commands. The following sections describe these two methods.

Drag to the New Location

To drag a file or folder to a new location, perform the following steps:

1. Open two file manager windows:
- The window containing the item you want to move.
 - The window you want to move it to, or the window containing the folder you want to move it to.

1. Drag the file or folder that you want to move to the new location. If the new location is a window, drop it anywhere in the window. If the new location is a folder icon, drop the item you are dragging on the folder.

To move the file or folder to a folder that is one level below the current location, do not open a new window. Instead, drag the file or folder to the new location in the same window.

Cut and Paste to the new location

You can cut a file or folder and paste the file or folder into another folder, as follows:

1. Select the file or folder that you want to move, then choose **Edit -> Cut**.
2. Open the folder to which you want to move the file or folder, then choose **Edit -> Paste**.

3.6.7 Copying a File or Folder

You can copy a file or folder by dragging it with the mouse, or with the copy and paste commands. The following sections describe these two methods.

Drag to the New Location

To copy a file or folder, perform the following steps:

1. Open two file manager windows:
 - The window containing the item you want to move.
 - The window you want to move it to, or the window containing the folder you want to move it to.
1. Drag the file or folder that you want to move to the new location. If the new location is a window, drop it anywhere in the window. If the new location is a folder icon, drop the item you are dragging on the folder.

To copy the file or folder to a folder that is one level below the current location, do not open a new window. Instead, grab the file or folder, then press-and-hold Ctrl. Drag the file or folder to the new location in the same window.

Copy and Paste to the New Location

You can copy a file or folder and paste the file or folder into another folder, as follows:

1. Select the file or folder that you want to copy, then choose **Edit -> Copy**.
2. Open the folder to which you want to copy the file or folder, then choose **Edit -> Paste**.

3.6.8 Duplicating a File or Folder

To create a copy of a file or folder in the current folder, perform the following steps:

1. Select the file or folder that you want to duplicate.
2. Choose **Edit -> Duplicate**.

A copy of the file or folder appears in the current folder.

3.6.9 Creating a Folder

To create a folder, perform the following steps:

1. Open the folder where you want to create the new folder.
2. Choose **File -> Create Folder**. Alternatively, right-click on the background of the window, then choose “Create Folder”.
An untitled folder is added to the location. The name of the folder is selected.
3. Type a name for the folder, then press *Enter*.

3.6.10 Renaming a File or Folder

To rename a file or folder perform the following steps:

1. Select the file or folder that you want to rename.
2. Choose **Edit -> Rename**. Alternatively, right-click on the file or folder, then choose “Rename...”.
The name of the file or folder is selected.
3. Type a new name for the file or folder, then press *Enter*.

3.6.11 Moving a File or Folder to Trash

To move a file or folder to Trash perform the following steps:

1. Select the file or folder that you want to move to Trash.
2. Choose **Edit -> Move to Trash**. Alternatively, right-click on the file or folder, then choose “Move to Trash”.

Alternatively, you can drag the file or folder to the Trash object on the desktop.

When you move a file or folder from a removable media to Trash, the file or folder is stored in a Trash location on the removable media. To remove the file or folder permanently from the removable media, you must empty Trash.

3.6.12 Deleting a File or Folder

When you delete a file or folder, the file or folder is not moved to Trash, but is deleted from your filesystem immediately. The “Delete” menu item is only available if you select the “Include a Delete command that bypasses Trash” option in the **Edit -> Preferences** dialog.

To delete a file or folder perform the following steps:

1. Select the file or folder that you want to delete.
2. Choose **Edit -> Delete**. Alternatively, right-click on the file or folder, then choose "Delete".

Alternatively, select the file or folder you want to delete, and press *Shift+Del*

3.6.13 Creating a Symbolic Link to a File or Folder

A symbolic link is a special type of file that points to another file or folder. When you perform an action on a symbolic link, the action is performed on the file or folder to which the symbolic link points. However, when you delete a symbolic link, you delete the link file, not the file to which the symbolic link points.

To create a symbolic link to a file or folder, select the file or folder to which you want to create a link. Choose **Edit -> Make Link**. A link to the file or folder is added to the current folder.

Alternatively, grab the item to which you want to create a link, then press-and-hold *Ctrl+Shift*. Drag the item to the location where you want to place the link.

By default, the file manager adds an emblem to symbolic links.

The permissions of a symbolic link are determined by the file or folder to which a symbolic link points.

3.6.14 File Permissions

Permissions are settings assigned to each file and folder that determine what type of access users can have to the file or folder. For example, you can determine whether other users can read and edit a file that belongs to you, or only have access to read it but not make changes to it.

Each file belongs to a particular user, and is associated with a group that the owner belongs to. The super user "root" has the ability to access any file on the system.

You can set permissions for three categories of users:

Owner - The user that created the file or folder.

Group - A group of users to which the owner belongs.

Others - All other users not already included.

For each category of user, different permissions can be set. These behave differently for files and folders, as follows:

read

•Files can be opened

- Directory contents can be displayed
- write
- Files can be edited or deleted
- Directory contents can be modified
- execute
- Executable files can be run as a program
- Directories can be entered

3.6.15 **Changing Permissions**

Changing Permissions for a File

To change the permissions of a file, perform the following steps:

1. Select the file that you want to change.
2. Choose **File -> Properties**. The properties window for the item is displayed.
3. Click on the “Permissions” tab.
4. To change the file's group, choose from the groups the user belongs to in the drop-down selector.
5. For each of the owner, the group, and all other users, choose from these permissions for the file:
 - None - No access to the file is possible(You can't set this for the owner).
 - Read-only - The users can open a file to see its contents, but not make any changes.
 - Read and Write - Normal access to a file is possible: it can be opened and saved.
6. To allow a file to be run as a program, select “Execute”

Changing Permissions for a Folder

To change the permissions of a folder, perform the following steps:

1. Select the folder that you want to change.
2. Choose **File -> Properties**. The properties window for the item is displayed.
3. Click on the “Permissions” tab.
4. To change the folder's group, choose from the groups the user belongs to in the drop-down selector.
5. For each of the owner, the group, and all other users, choose from these folder access permissions:
 - None - No access to the folder is possible (You can't set this for the owner.)

List files only - The users can see the items in the folder, but not open any of them.

Access files - Items in the folder can be opened and modified, provided their own permissions allow it.

Create and delete files - The user can create new files and delete files in the folder, in addition to being able to access existing files.

To set permissions for all the items contained in a folder, set the “File Access” and “Execute” properties and click on “Apply permissions to enclosed files”.

3.6.16 Writing CDs or DVDs

Writing to a CD or DVD may be useful for backing up your important documents. To do this, your computer must have a CD or DVD writer.

A simple way to check what sort of CD or DVD drive your computer has is to choose **Places -> Computer** from the top panel menubar. If the icon for your CD drive has terms like "CD-RW" or "DVD(++)R" in its label, then your computer is able to write discs.

You can start choosing files to burn to a disc at any time. The file manager provides a special folder for files and folders that you wish to write to a CD or DVD. From there you can easily write all of the content (which you place in this special folder) to a CD or DVD.

Creating Data Discs

To write a CD or DVD, perform the following steps:

1. Choose **Places -> CD/DVD Creator**. The file manager opens the CD/DVD Creator folder.
In a File Browser window, this item is in the Go menu.
2. Drag the files and folders that you want to write to CD or DVD to the CD/DVD Creator folder.
3. Insert a writable CD or DVD into the CD/DVD writer device on your system.
4. Press the “Write to Disc” button, or choose **File -> Write to CD/DVD**. A Write to Disc dialog is displayed.
5. Use the Write to Disc dialog to specify how you want to write the CD

•Write disc to - Select the device to which you want to write the CD from the drop-down list. To create a CD image file, select the “File image” option. A CD image file is a normal file that contains all of the data in the same format as a CD, that you can write to a CD later.

•Disc name - Type a name for the CD in the text box.

•Data size - Shows the size of the data to be written to disc. The blank disk must be at least this size.

•Write speed - Select the speed at which you want to write the CD from the drop-down list.

Click on the “Write” button.

If you selected the “File image” option from the “Write disc to” drop-down list, “Choose a filename for the disc image” dialog is displayed. Use the dialog to specify the location where you want to save the disc image file. By default, disc image files have a .iso file extension.

A Writing disc dialog is displayed. This process takes some time. When the disc is written or when the disc image file is created, a message to indicate that the process is complete is displayed in the dialog.

Copying CDs or DVDs

You can create a copy of a CD or DVD, either to another disc or to an image file stored on your computer. To create a copy, perform the following steps:

1. Insert the disc you want to copy.
2. Choose **Places -> Computer** from the top panel menubar.
3. Right-click on the CD icon, and choose “Copy Disc”.
4. The Write to Disc dialog is displayed.

If you have only one drive with write capabilities, the process will first create a disc image file on your computer. It will then eject the original disk, and ask you to change it for a blank disk on which to write the copy.

Creating a Disc from an Image File

You can write a disc image to a CD or DVD. For example, you may have downloaded a disc image from the internet, or previously created one yourself. Disc images usually have a .iso file extension and are sometimes called iso files.

To write a disc image, right-click on the disc image file, then choose Write to Disc from the popup menu.

3.6.17 Accessing a Remote Server

You can use the file manager to access a remote server, be it an FTP site, a Windows share, or an SSH server.

To access a remote server, choose **File -> Connect to Server....** You may also access this dialog from the menu bar by choosing **Places -> Connect to Server....**

In the “Connect to Server” dialog, you may click on the “Browse Network” button to close this dialog and view services available on your network in a Nautilus window.

To connect to a remote server, start by choosing the service type, then enter the server address.

If required by your server, you may provide the following optional information :

- Port - Port to connect to on the server. This should only be used if it is necessary to change the

default port, you would normally leave this blank.

- Folder - Folder to open upon connecting to server.

- Name to use for connection - The designation of the connection as it will appear in the file manager.

If the server information is provided in the form of a URI, or you require a specialized connection, choose “Custom Location” as the service type.

Once you have filled in the information, click “Connect” button. When the connection succeeds, the contents of the site are displayed and you may drag and drop files to and from the remote server.

3.7 Finding Data on your Computer

The “Search for Files” application enables you to search for files on your system.

To start search choose **Places -> Search for Files...**

3.7.1 To Perform a Basic Search

To perform a basic search for a file on the system, perform the following steps:

1. Enter the search text in the “Name contains:” field. The search text can be a filename or partial filename, with or without wildcards, as shown in the following table:

Name Contains Text	Example	Result
Full or partial filename	myfile.txt	Search for Files searches for all files that contain the text myfile.txt in the filename.
Partial filename combined with wildcards (*, [,])	*.[ch]	Searches for all files that have extension .c or .h

2. In the “Look in folder:” field, select the folder or device from which you want Search for Files to begin the search.
3. Click “Find” to perform the search.

Search for Files searches in the directory that you specify and the subdirectories of the directory. Search for Files displays the results of the search in the Search results list box. If Search for Files does not find any files that match the search criteria, the application displays the message “No files found” in the Search results list box.

3.7.2 To Add Search Options

You can add additional options to search for a file on the system. To add search options, perform the following steps:

1. Click on the “Select more options” text.
2. Click on the “Available options:” drop-down list.

3. Select the search option that you want to apply.
4. Click “Add”.
5. Specify the required search information for the search option
6. Repeat the above steps for each search option that you want to apply.

To remove a search option from the current search, click on the “Remove” button next to the option.

To disable the search options from the current search, click on the “Select more options” text.

3.7.3 To Stop a Search

Click “Stop” to stop a search before Search for Files completes the search.

3.7.4 To Open a Displayed File

To open a file displayed in the Search results list box, perform one of the following steps:

- Right-click on the file, then choose “Open”.
- Double-click on the file.
- To open the folder that contains a file displayed in the Search results list box, right-click on the file, then choose “Open Folder”.

3.7.5 To Delete a Displayed File

To delete a file displayed in the Search results list box, right-click on the file, then choose “Move to Trash”.

3.7.6 To Save the Search Results

To save the results of the last search that Search for Files performed, right-click in the Search results list, then choose “Save Results As...”. Enter the name of the file to which you want to save the results, then click “Save”.

4 Customizing Desktop Settings

You can change the way your desktop looks and behaves to suit your own personal tastes and needs.

4.1 Changing Individual Desktop Elements

4.1.1 Creating New Desktop Objects

To create a new folder,

1. Right-click an empty space on the desktop.
2. From the popup menu, choose “Create Folder”.
3. An untitled folder appears on the desktop. Rename the folder.

To create a new file,

1. Right-click an empty space on the desktop.
2. From the popup menu, choose “Create Document”. From the sub menu choose “Empty File”.
3. A file with name “new file” appears on the desktop.

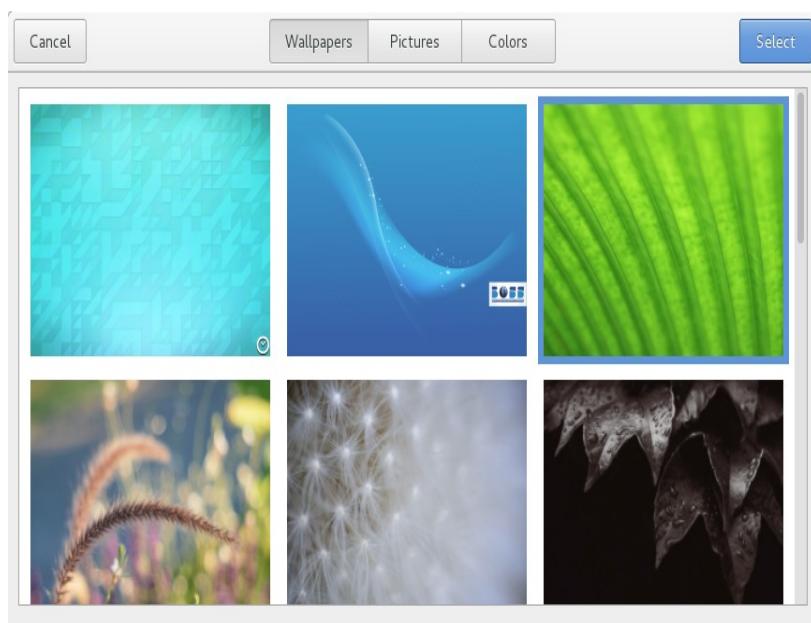
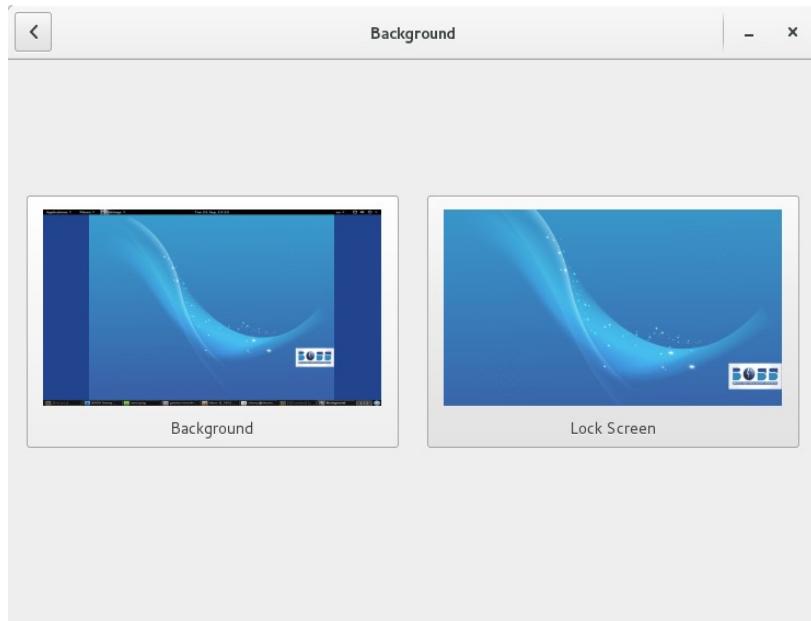
To change the properties, of the objects in the desktop right click the object and select “properties”. A dialog appears with five tabs where you can change the properties of the object such as permissions.

4.2 Changing the Desktop Settings

You can change a variety of settings, such as the desktop background, screen saver, fonts, keyboard and mouse configuration, and sounds.

4.2.1 Changing the Desktop Background

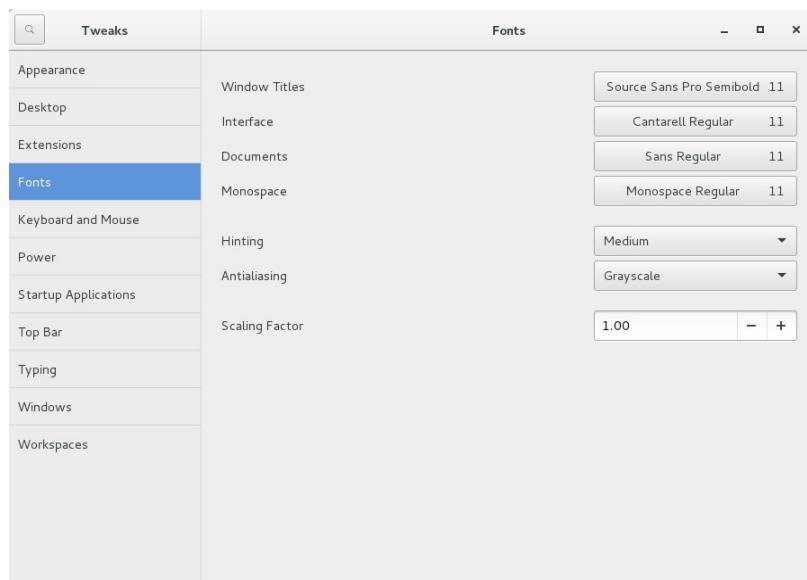
To change the desktop background, right-click on the desktop and select “Change Desktop Background” or choose **Applications-> System Tools -> Settings** and click “**Background**” tab. The following window appears.



Select the wallpaper you like and click “Select”. If you want to add wallpaper stored in another location click “Pictures” button and select new wallpaper and click “Select”. If you want to change the background color of the desktop click “Colors” button and choose the color

4.2.2 Changing the Desktop Font

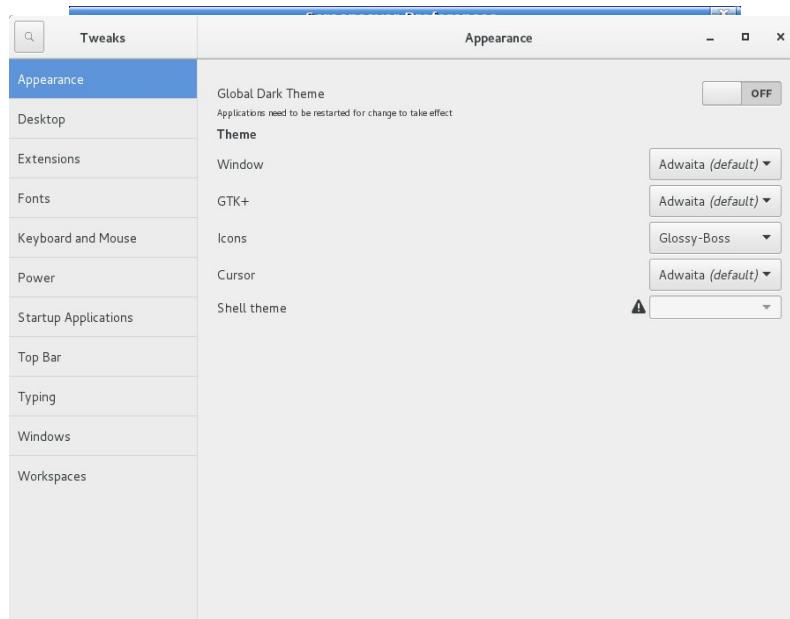
To change the desktop font, choose **Applications-> System Tools -> Tweaktool** and click “**Fonts**” tab. A new window appears. In that select the “Desktop font” option.



Select the font and click “OK”.

4.2.3 Changing the Desktop Theme

To change the desktop theme choose, **Applications-> System Tools -> Tweaktool** and click the “**Appearance**”. The following window appears.



Select the theme you want and click “close”.

5 Linux Basics with BOSS GNU/Linux

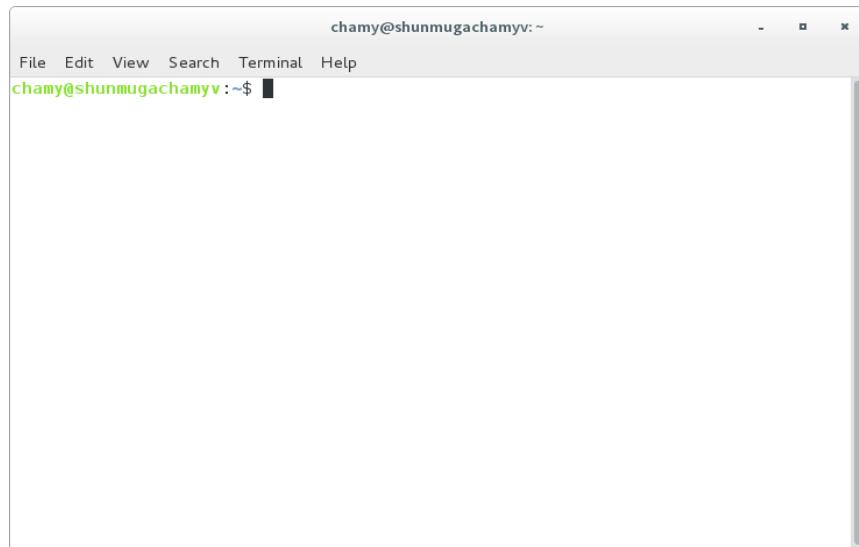
This section covers the Linux basics, which helps you to work with BOSS GNU/Linux. This covers only the basics as this is not the Linux Guide. This just helps you to get startup with BOSS GNU/Linux and help you in using for basic installation of packages and view the contents etc. If you want to learn about Linux in detail, then please find some document which is completely written for Linux and work with BOSS GNU/Linux. If you find any difficulty anywhere

while using BOSS GNU/Linux, then inform us at bosslinux@cdac.in

5.1 Opening a Shell Prompt

The desktop offers access to a *shell prompt*, an application that allows you to type commands instead of using a graphical interface for all computing activities. While *BOSS GNU/Linux Quick Start Guide* primarily focuses on performing tasks using the graphical interface and graphical tools, it is sometimes useful and faster to perform tasks from a shell prompt.

You can open a Shell prompt/Terminal by selecting **Applications -> Utilities -> Terminal**.



To exit a shell prompt, click the **X** button on the upper right corner of the shell prompt window, or type **exit** at the prompt.

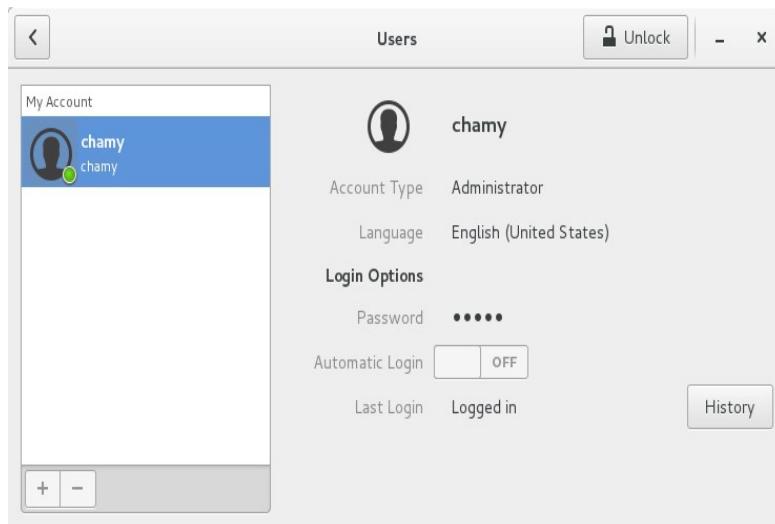
5.2 Create a New User

During the installation process of BOSS GNU/Linux, you will be able to create one user account. If you want to create some more user accounts after installation then you can use the Graphical Interface for users creation else you can go with the shell prompt. First we will discuss about the GUI method later we will discuss about the shell prompt method

To create new user account

- Select **Applications → System Tools → Settings → Users** from the menu.

- The following window will appear.



- Click on **Add User**, which opens an interface to enter details about the username, password etc. Enter all the details and click on **OK**. Thus the new user is added.

To create a user from shell prompt:

- Open the terminal and type **adduser**.
- If you are not logged in as root then type **su** to change to root user and execute the **adduser** command.
- It prompts you to enter the password for the newly created user and further details. You can skip the details if you doesn't need them.

5.3 Documentation for Linux Commands

If you want to learn more about the Linux commands then you can see the man pages for each command which explains you the details about the command and its usage. Man pages of a command are nothing but the manual pages. They can be viewed by using the **man** command. Like:

Syntax :

```
$ man <command>
```

Example :

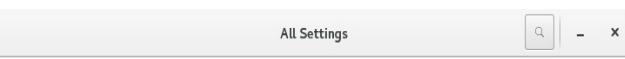
```
$ man ls // Displays the help page for the ls command
```

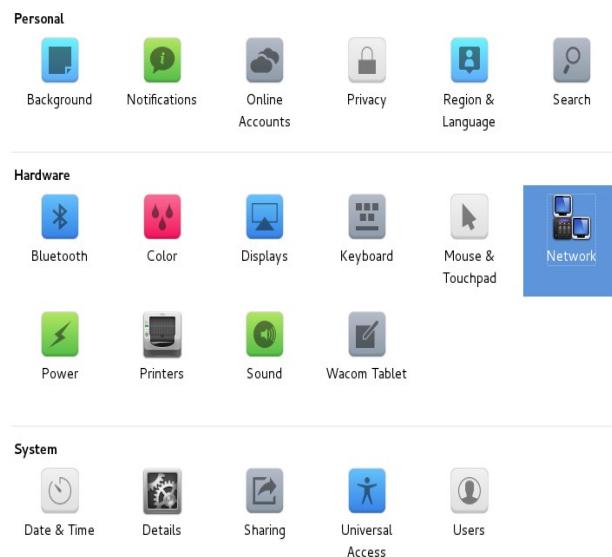
6 Networking

Configuring Network has some simple steps to be followed:

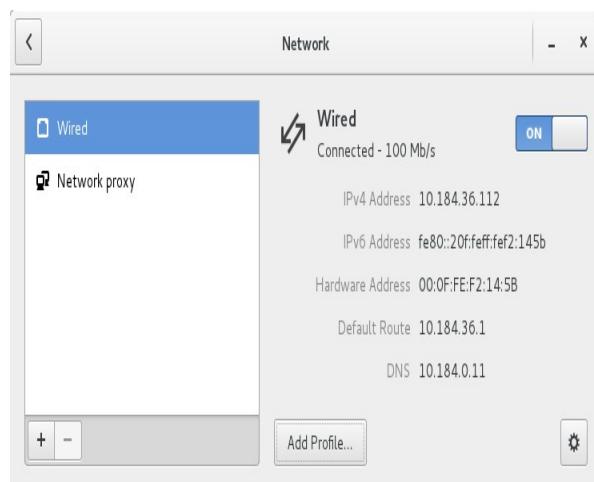
6.1 Networking through Ethernet

1. Go to **Applications Settings**

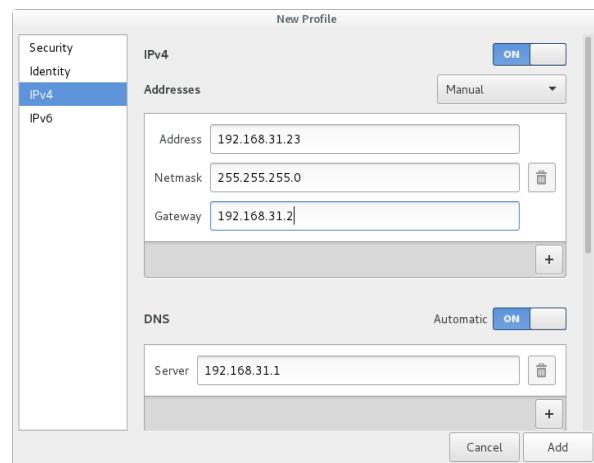
→  → **System Tools** → **Network**



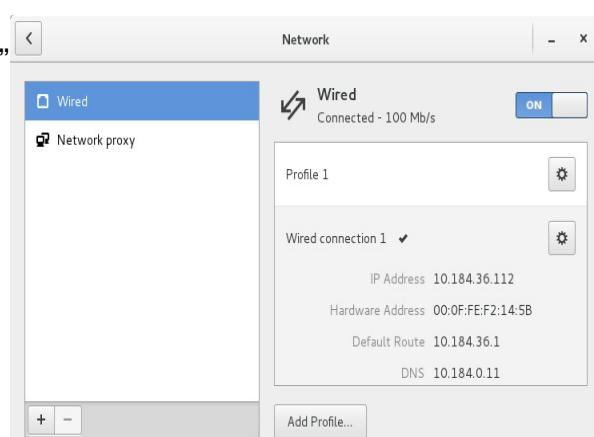
2. Select the Wired Connection



3. Set the IP address , Gateway etc., and click “OK”.



4. Click the “Apply” button.



6.2 Setting up Dial-up connection in BOSS

Dial-up access is a form of Internet access through which the client uses a modem connected to a computer and a telephone line to dial into an Internet service provider's (ISP) node to establish a modem-to-modem link, which is then routed to the Internet.

6.2.1 Configuring a Dial-Up Connection using wvdial & wvdialconf

Wvdial is a command-line pppd driver. It has two main components, wvdialconf and wvdial. Both must be run as root.

Making a New Connection

1. Run **wvdialconf** to generate a configuration file containing information about your modem and ISP.
2. wvdialconf probes your com ports, looking for a modem, and determine the capabilities of any modems it finds.

If your output looks different, check that your modem is plugged in, turned on, and connected to a com port.

Configuring WvDial

1. Once you have run wvdialconf, you need to **edit the /etc/wvdial.conf file** to reflect the phone number to dial, and your username and password.
2. Open up /etc/wvdial.conf in your favorite text editor. It should look something like this:

```
[Dialer Defaults]
Modem = /dev/ttyS1
Baud = 115200
Init1 = ATZ
Init2 = ATQ0 V1 E1 S0=0 &C1 &D2 S11=55 +FCLASS=0
; Phone = 555-1212
; Username = my_login_name
; Password = my_login_password
```

3. Remove the ';' in front of the Phone, Username and Password lines

4. Fill ISP phone number on the **Phone = line**.
5. Fill your **Username** on the **Username = line**.
6. Fill your **Password** on the **Password = line**.
7. Save your changes and exit out of the text editor.

Connecting to the Internet

Run **wvdial** command in terminal. Assuming that you filled in your phone number, username, and password correctly, wvdial will now dial your ISP.

Disconnecting from the Internet

wvdial will not exit until the connection is terminated- you can do a *Ctrl+C* to terminate it.

6.3 Setting up Broadband Internet connection in BOSS

If your ISP assigned a username and password to use when you connect to your broadband Internet connection, then you must set up PPPoE before you can connect to the Internet. Click **Applications → System Tools → ADSL/PPPOE Configuration**. This application will attempt to detect PPPoE use on your network, and then enter your username and password to connect to the ISP.

- If there is any previous connection make the required modifications.
- Normally the "Use Peer DNS" and "Limited MSS problem" are set YES
- If you want your internet connection to be set up every time you login.,then give YES for Startup option.
- Set the connection immediately and enjoy surfing in BOSS.

If you don't want to go for a startup option, then you can start the connection manually everytime on demand through terminal by using the following command:

sudo pon dsl-provider

To stop the ADSL connection type

sudo poff dsl-provider

Later in case if you want to set up the connection everytime in startup.,ie at booting time.,
sudo gedit /etc/network/interfaces

and add the below lines to the file

```
pre-up /sbin/ifconfig eth0 up # line maintained by pppoeconf
auto dsl-provider
iface dsl-provider inet ppp
provider dsl-provider
```

6.4 Wireless Connection

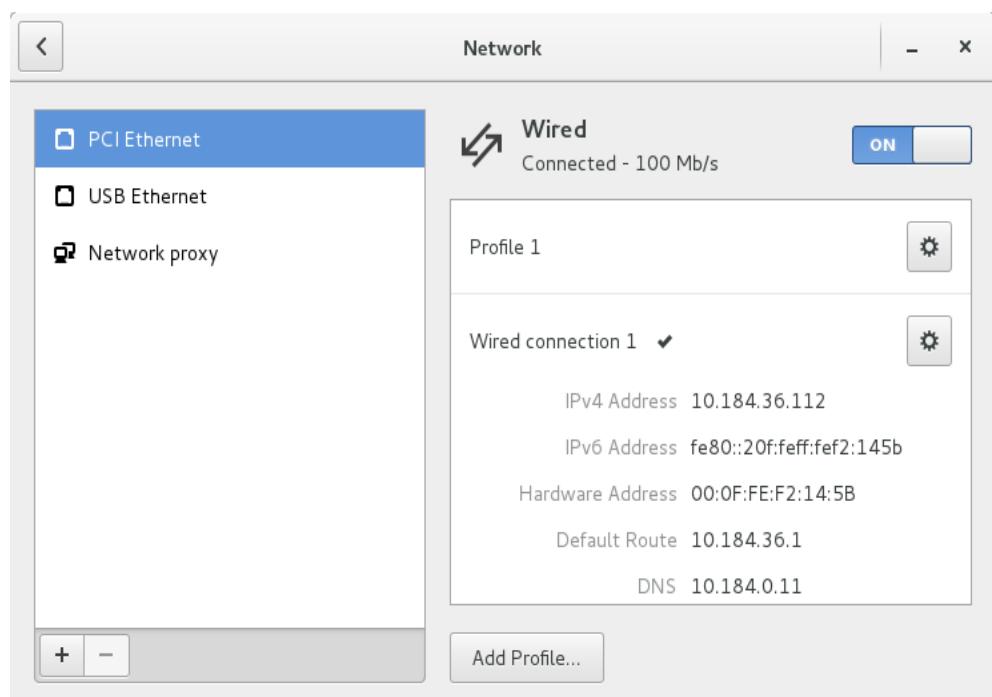
To configure network click **Applications → System Tools -> Network**

Select “Wireless Connection” in the screen that appears.

Now, by default, all the network interfaces are not configured. The default interface for your wired connection is **eth0**, the default interface for your wireless connection is **eth1**, while that for your modem should be **ppp0**. Click on “Wireless Connection”, and then click “Properties”.

Once you've filled your SSID (network name) and WEP key (if there is one), then you have to make sure that you have the correct IP address. If there is no IP address, leave it on “Automatic configuration(DHCP)” which is the default. If there is, change the configuration to “Static IP address”, and input your IP address in the fields provided. After you've clicked “OK”, you are ready to go.

By clicking the network icon in task bar in the desktop,it shows all the all the available networks including wireless,wired connections. Following screen shot show these details.



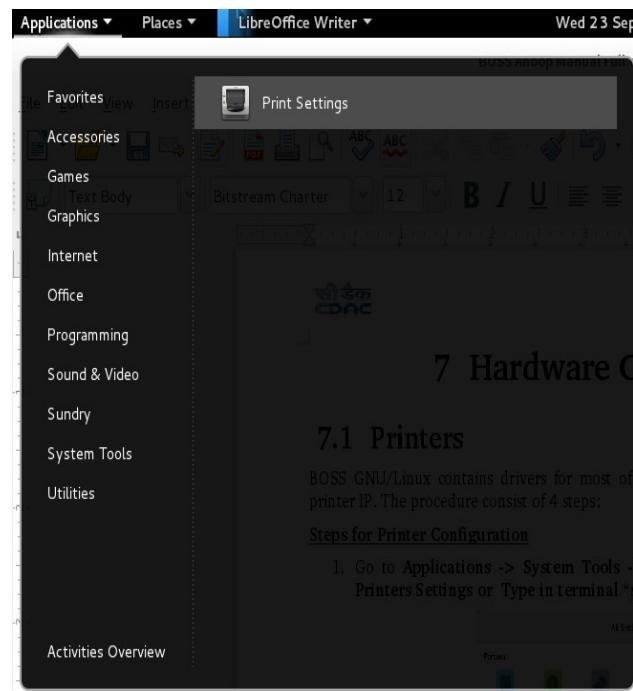
7 Hardware Configurations

7.1 Printers

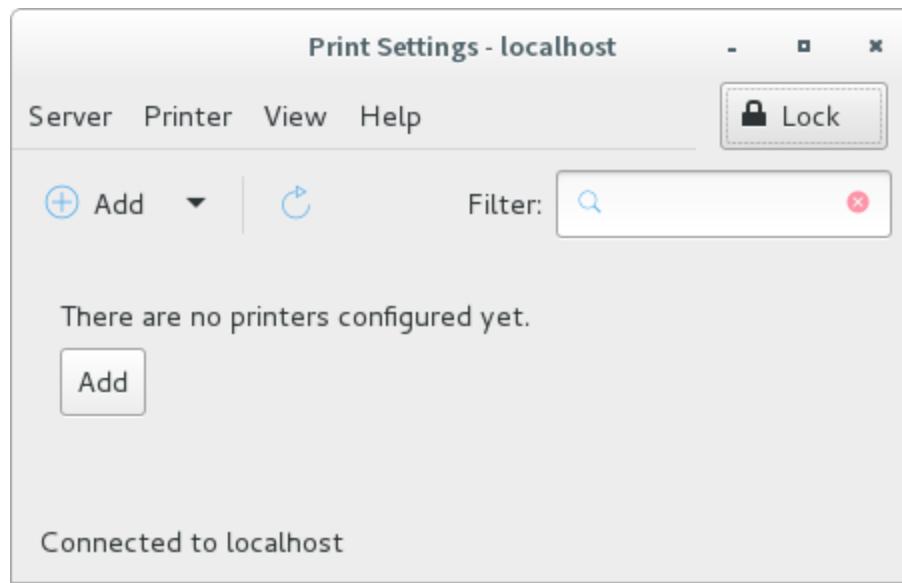
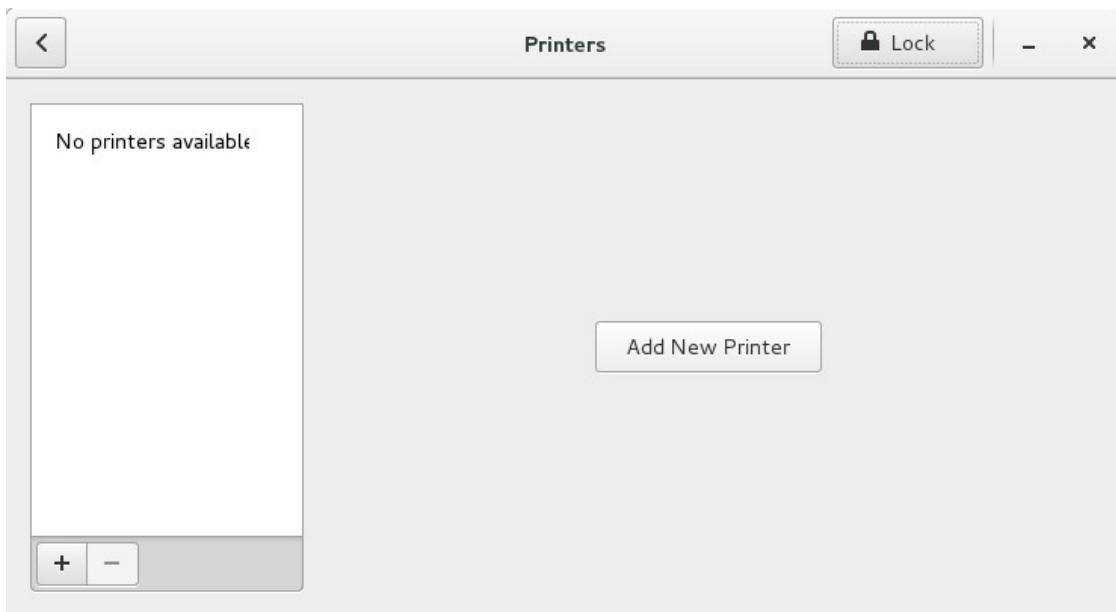
BOSS GNU/Linux contains drivers for most of the Printers, just you have to configure the printer IP. The procedure consist of 4 steps:

Steps for Printer Configuration

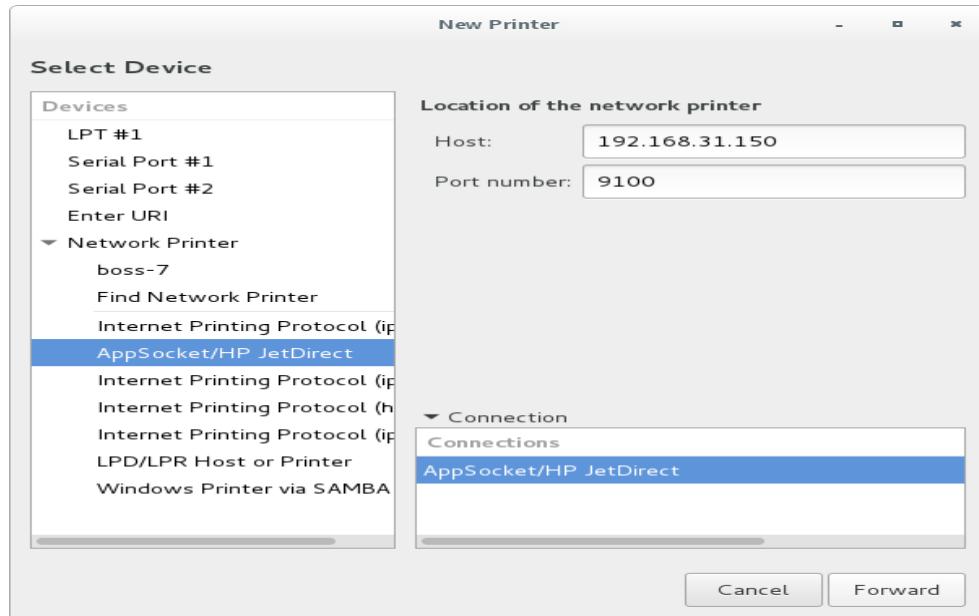
1. Go to Applications -> Sundry -> Printers Settings or Type in terminal “system-config-printer”



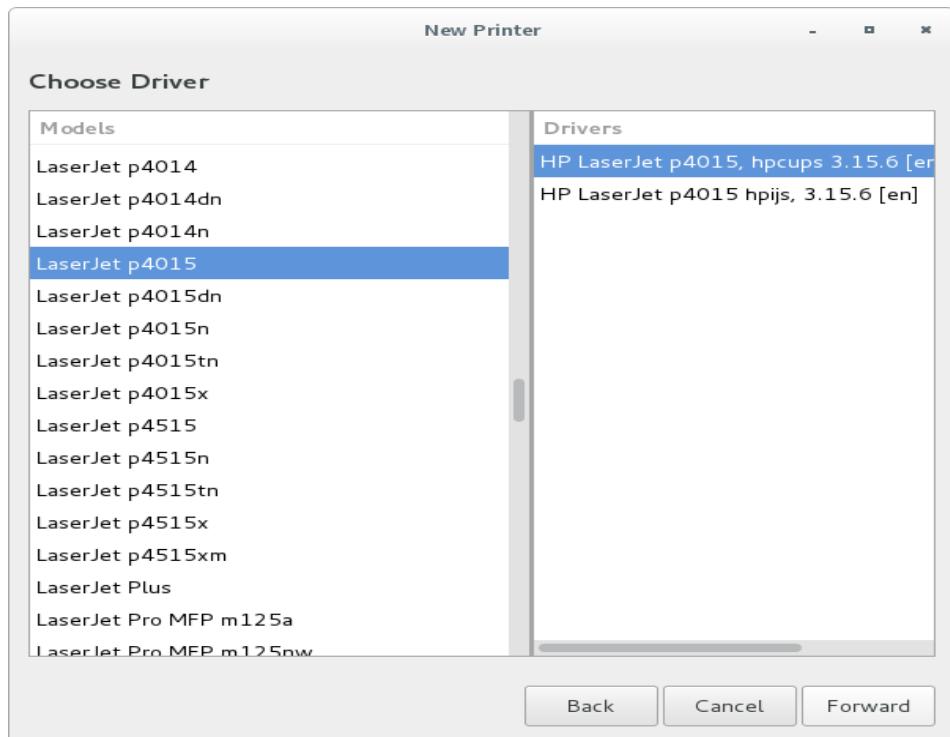
2. Click on “Unlock” button and Enter the administrator password to unlock. Then Click the the '+' or Click “Add New Printer” to add new printer.



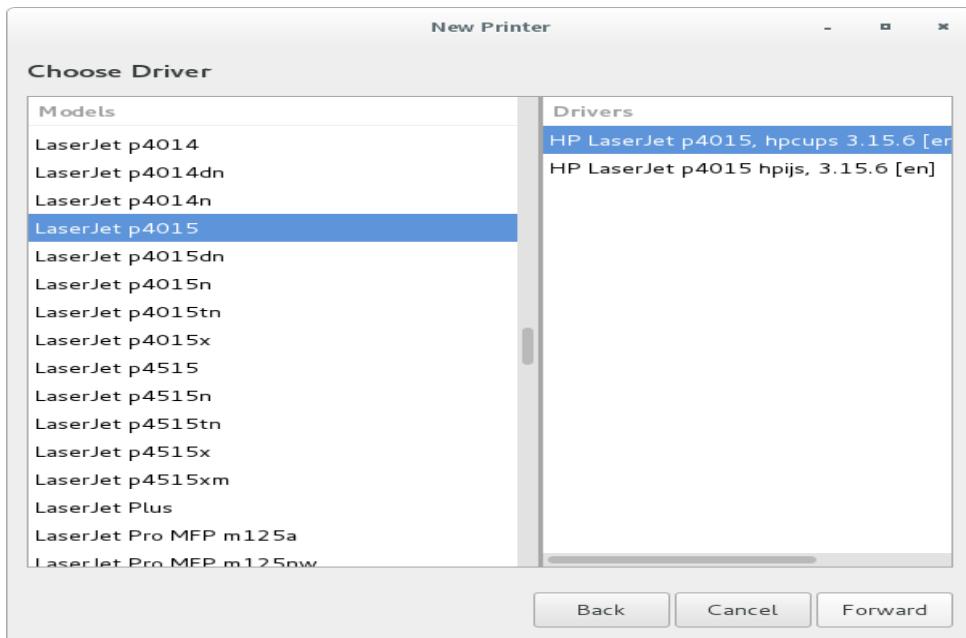
3. Select the type of the printer. For Network printer enter the IP address, port no and click "Forward"



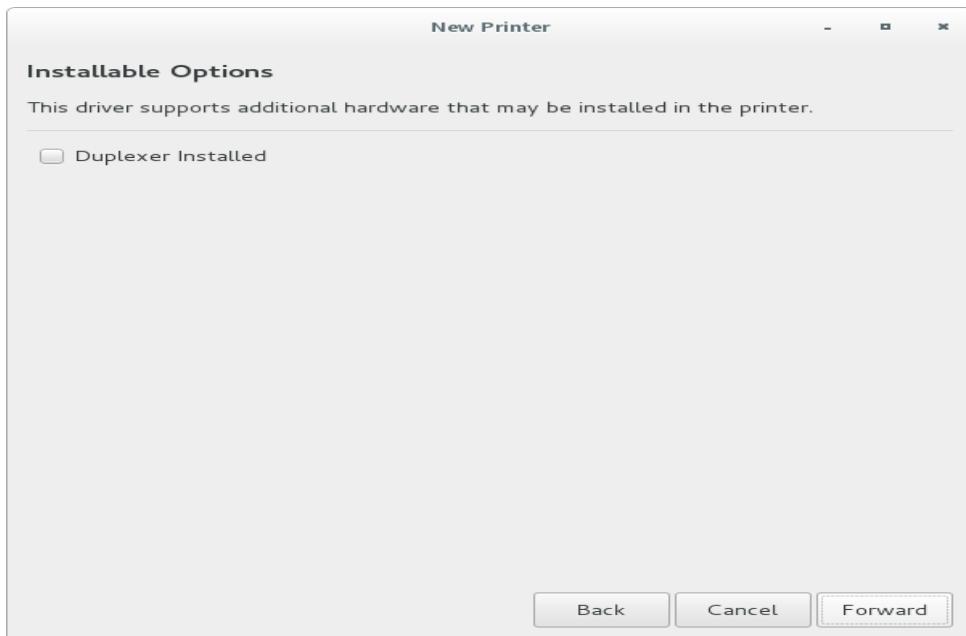
4. Select the Printer Company and click “Forward”



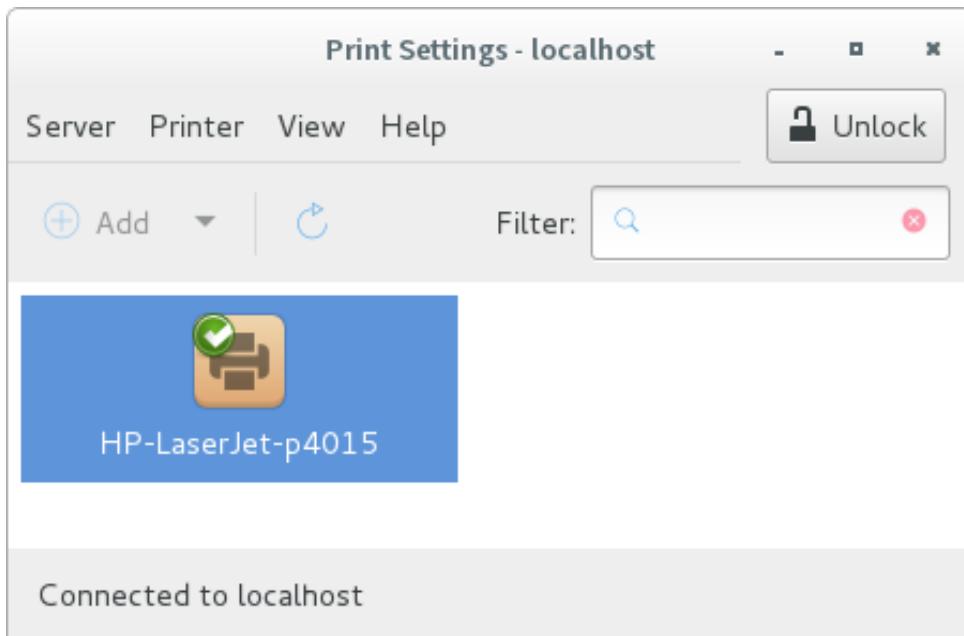
5. Select the Printer Model and click “Forward”.



Configure printer specific parameters



So, now your printer is configured successfully.



Installing Printer drivers externally if not available in BOSS GNU/Linux

If you are not able to find your printer model in the list provided then download the divers from the following website:

http://www.linuxprinting.org/printer_list.cgi

Here you select the printer company and the model from the select box and click on "Show". This will follow up a page where you need to search for the Recommended Drivers line and click on "Custom PPD" or "Download PPD" [Differs based on printer]. Save this PPD file in your system.

Now Select the Printing option from **System → Administration → Printing**. In the Step 2 of configuration (figure shown below) click on "Provide PPD File". Then click on the open folder and select the saved PPD file. This installs your printer divers into your system.



7.2 USB

As soon as the USB is plugged in, it is auto detected and can be used without any manual mounting and configuring.

7.3 Webcam, Digital Camera

Connect the device to your system.

To use Webcam choose **Applications -> Sound & Video -> guvcview** or type **guvcview** in terminal and press *Enter*.

If your Webcam or Digital camera drivers are not already present in BOSS GNU/Linux then you can download them from the following link and install the drivers. The steps for installation are mentioned in the software itself.

Links:

<http://alpha.ovcam.org/ov511/cameras.html#chipsets>

<http://webcam.sourceforge.net/#cams>

<http://www.sane-project.org/sane-mfgs.html>

7.4 Bluetooth Support

Bluetooth is an industrial specification for wireless personal area networks (PANs). Bluetooth provides a way to connect and exchange information between devices such as mobile phones, laptops, PCs, printers, digital cameras and video game consoles via a secure, globally unlicensed short-range radio frequency.

Usage of Bluetooth

1. Transfer data from your PC to other external device(a device that supports bluetooth).
- Activate bluetooth in both the PC and the external device.
- Right-click on the file you want to send through bluetooth and select “Sent to...”.
- A window as shown in the figure appears. In “Sent to” select the device to which you want to transfer the file.



2. Transfer data from external device(a device that supports bluetooth) to your PC.

- External device will detect your PC as 'BOSS-0' (scan it)
- Send file from your device using bluetooth.
- In your PC , Accept request from your device.
- Data will be in your \$HOME folder.

8 LibreOffice

LibreOffice is a powerful office suite; its clean interface and powerful tools let you unleash your creativity and grow your productivity. LibreOffice embeds several applications that make it the most powerful Free & Open Source Office suite on the market: Writer, the word processor, Calc, the spreadsheet application, Impress, the presentation engine, Draw, our drawing and flowcharting application, Base, our database and database front end, and Math for editing mathematics.

Localization

Localization involved translation of the LibreOffice glossary having 7000 strings and resource strings, with approximately 21000 strings. Resource strings were extracted from the built source, translated in Hindi, and merged back with the localization tools. For localizing the source, the Hindi language had to be added to the build environment, build tools, resource system and installation setup projects, altogether comprising 8 independent modules of the LibreOffice source. Finally, this localized source, containing Hindi translations was then rebuilt to produce a Hindi localized installation, which had the entire user interface elements (menus, strings, messages, tool tips, pop ups, dialog boxes and so on) in Hindi.

8.1 The LibreOffice Application Modules

Module	Purpose
Writer	Word processor application module
Calc	Spreadsheet application module
Impress	Presentation application module
Base	Database application module
Draw	Application module for drawing vector graphics
Math	Application module for generating mathematical formulas

8.2 Word Processing with Writer

LibreOffice Writer is a full-featured word processor with page and text formatting capabilities. Its interface is similar to interfaces for other major word processors, and it includes some features that are usually found only in expensive desktop publishing applications.

This section highlights a few key features of Writer. For more information about these features and for complete instructions for using Writer, look at the LibreOffice help.

To open writer, choose **Applications -> LibreOffice -> LibreOffice Writer** or

type **libreoffice -- writer** in terminal and press *Enter*.

Creating a New Document

There are two ways to create a new document:

To create a document, click **File -> New -> Text Document**. Enter text in the document window as desired. Use the “Formatting” toolbar or the “Format” menu to adjust the appearance of the document. Use the “File” menu or the relevant buttons in the toolbar to print and save your document. With the options under “Insert”, add extra items to your document, such as a table, picture, or chart.

Opening the Styles and Formatting Window

The Styles and Formatting window is a versatile formatting tool for applying styles to text, paragraphs, pages, frames, and lists. To open this window, click **Format -> Styles and Formatting**. LibreOffice comes with several predefined styles. You can use these styles as they are, modify them, or create new styles.

Applying a Style

To apply a style, select the element you want to apply the style to, and then double-click the style in the Styles and Formatting window. For example, to apply a style to a paragraph, place the cursor anywhere in that paragraph and double-click the desired style.

Using Templates to Format Documents

Most word processor users create more than one kind of document. For example, you might write letters, memos, and reports, all of which look different and require different styles. If you create a template for each of your document types, the styles you need for each document are always readily available.

Creating a template requires a little bit of up-front planning. You need to determine what you want the document to look like so you can create the styles you need in that template. You can always change your template, but a little planning can save you a lot of time later.

Creating a Template

A template is a text document containing only the styles and content that you want to appear in every document, such as your address information and letterhead on a letter. When a document is created or opened with the template, the styles are automatically applied to that document.

To create a template:

1. Click **File -> New -> Text Document**.
2. Create the styles and content that you want to use in any document that uses this template.
3. Click **File -> Templates -> Save...**
4. Specify a name for the template.
5. In the Categories box, click the category you want to place the template in.

The category is the folder where the template is stored.

6. Click “OK”.

To use a template, select **File -> New -> Templates and Documents**. Select the template you want and add the necessary details.

Using Writer as an HTML Editor

In addition to being a full-featured word processor, Writer also functions as an HTML editor. Writer includes HTML tags that can be applied as you add any other style in a Writer document. You can view the document as it will appear online, or you can directly edit the HTML code.

Creating an HTML Document

1. Click **File -> New -> HTML Document**.
2. Click the arrow at the bottom of the Styles and Formatting window.
3. Select HTML Styles.
4. Create your HTML document, using the styles to tag your text.
5. Click **File -> Save As**.
6. Select the location where you want to save your file, name the file, and select **HTML Document (.html)** from the Filter list.
7. Click “OK”.

If you prefer to edit HTML code directly, or if you want to see the HTML code created when you edited the HTML file as a Writer document, click **View -> HTML Source**. In HTML Source mode, the Formatting and Styles list is no longer available.

8.3 Using Spreadsheets with Calc

Calc is the LibreOffice spreadsheet application. To open calc choose **Applications -> Office -> LibreOffice.org Calc** or type **libreoffice - -calc** in terminal and press *Enter*.

To create a new spreadsheet click **File -> New -> Spreadsheet**. To open an already existing file click **File -> Open**.

In the spreadsheet cells, enter fixed data or formulas. A formula can manipulate data from other cells to generate a value for the cell in which it is inserted. You can also create charts from cell values.

Using Formatting and Styles in Calc

Calc comes with a few built-in cell and page styles to improve the appearance of your spreadsheets and reports. Although these built-in styles are adequate for many uses, you will probably find it useful to create styles for your own frequently used formatting preferences.

Creating a Style

1. Click **Format -> Styles and Formatting**.
2. In the Styles and Formatting window, click either the “Cell Styles” or the “Page Styles” icon.
3. Right-click in the Styles and Formatting window, then click “New...”.
4. Specify a name for your style and use the various tabs to set the desired formatting options.
5. Click “OK”.

Modifying a Style

1. Click **Format -> Styles and Formatting**.
2. In the Formatting and Styles window, click either the “Cell Styles” or the “Page Styles” icon.
3. Right-click the name of the style you want to change, then click “Modify...”.
4. Change the desired formatting options.
5. Click “OK”.

Using Templates in Calc

If you use different styles for different types of spreadsheets, you can use templates to save your styles for each spreadsheet type. Then, when you create a particular type of spreadsheet, open the applicable template and the styles you need for that template are available in the Styles and Formatting window.

Creating a Template

A Calc template is a spreadsheet that contains styles and content that you want to appear in every spreadsheet created with that template, such as headings or other cell styles. When a spreadsheet is created or opened with the template, the styles are automatically applied to that spreadsheet.

To create a template:

1. Click **File -> New -> Spreadsheet**.
2. Create the styles and content that you want to use in any spreadsheet that uses this template.
3. Click **File -> Templates -> Save**.
4. Specify a name for the template.

5. In the Categories box, click the category you want to place the template in.
The category is the folder where the template is stored.
6. Click “OK”.

To use the template in your document select **File -> New -> Templates and Documents** and select the name of the template you want to use.

8.4 Using Presentations with Impress

Use LibreOffice Impress to create presentations for screen display or printing, such as slide shows or transparencies. If you have used other presentation software, you can move comfortably to Impress, which works very similarly to other presentation software. Impress can open and save Microsoft PowerPoint presentations, which means you can exchange presentations with PowerPoint users, as long as you save your presentations in PowerPoint format.

To open presentation, choose **Applications -> Office -> LibreOffice 3.2 Impress** or type **libreoffice --impress** in terminal and press *Enter*.

Creating a Presentation

To create a new presentation, click **File -> New -> Presentation**. Select the option to use for creating the presentation.

There are two ways to create a presentation:

1. Create an empty presentation

Opens Impress with a blank slide. Use this option to create a new presentation from scratch, without any preformatted slides.

2. Create a presentation from a template

Opens Impress with your choice of template. Use this option to create a new presentation with a predesigned LibreOffice template or a template you've created or installed yourself, such as your company's presentation template. Impress uses styles and templates the same way other LibreOffice modules do.

Using Master Pages

Master pages give your presentation a consistent look by defining the way each slide looks, what fonts are used, and other graphical elements. Impress uses two types of master pages:

1. Slide master

Contains elements that appear on all slides. For example, you might want your company logo to appear in the same place on every slide. The slide master also determines the text formatting style for the heading and outline of every slide that uses that master page, as well as any information you want to appear in a header or footer.

2. Notes master

Determines the formatting and appearance of the notes in your presentation.

Creating a Slide Master

Impress comes with a collection of preformatted master pages. Eventually, most users will want to customize their presentations by creating their own slide masters.

1. Start Impress, then create a new empty presentation.
2. Click **View -> Master -> Slide Master**.
This opens the current slide master in Master View.
3. Right-click the left-hand panel, then click “New Master”.
4. Edit the slide master until it has the desired look.
5. Click “Close Master View” or choose **View -> Normal** to return to Normal View.

Applying a Slide Master

Slide masters can be applied to selected slides or to all slides in the presentation.

1. Open your presentation, then click **View -> Master -> Slide Master**.
2. (Optional) If you want to apply the slide master to multiple slides, but not to all slides, select the slides that you want to use that slide master.
3. To select multiple slides, in the Slides Pane, press *Ctrl* and click on the slides you want to use that slide master.
4. In the Task Pane, right-click the master page you want to apply. If you do not see the Task Pane, click **View -> Task Pane**.
5. Apply the slide master by clicking one of the following:

Apply to All Slides

Applies the selected slide master to all slides in the presentation.

Apply to Selected Slides

Applies the selected slide master to the current slide, or to any slides you select before applying the slide master. For example, if you want to apply a different slide master to the first slide in a presentation, select that slide, then change to Master View and apply a slide master to that slide.

8.5 Using Databases with Base

Use Base to design a database to store many different kinds of information, from a simple address book or recipe file to a sophisticated document management system. Tables, forms, queries, and reports can be created manually or using convenient wizards. For example, the

Table Wizard contains a number of common fields for business and personal use. Databases created in Base can be used as data sources, such as when creating form letters.

To open database choose, **Applications -> Office -> LibreOffice Base** or type **libreoffice - -base** in terminal and press *Enter*.

Creating a Database Using Predefined Options

Base comes with several predefined database fields to help you create a database. The process for creating a database can be broken into several subprocesses:

Creating a new Database

First, to create a new database follow these steps:

1. Click **File -> New -> Database**.
2. Select “Create a new database”, then click “Next”.
3. Click “Yes, register the database for me” to make your database information available to other LibreOffice modules, select both check boxes in the bottom half of the dialog, then click “Finish”.
4. Browse to the directory where you want to save the database, specify a name for the database, then click “OK”.

Setting Up the Database Table

Data is stored in tables. As an example, your system address book that you use for your e-mail addresses is a table of the address book database. Each address is a data record, presented as a row in that table. The data records consist of data fields, for example the first and the last name fields and the e-mail field.

Creating a New Table using the Table Wizard

1. Open the database file where you want to create the new table.
2. In the left pane of the database window, click the “Tables” icon.
3. Click “Use Wizard to Create Table”.

Creating a New Table using the Design View

1. Open the database file where you want to create the new table.
2. In the left pane of the database window, click the “Tables” icon.
3. Click “Create Table in Design View”.

Creating a New Table View

Some database types support table views. A table view is a query that is stored with the database. For most database operations, a view can be used as you would use a table.

1. Open the database file where you want to create the new table view.
2. In the left pane of the database window, click the “Tables” icon.
3. Click “Create View”.

Working with Queries

If you often want to access only a subset of your data that can be well defined by a filter condition, you can define a query. This is basically a name for the new view at the filtered data. You open the query and see the current data in the table layout that you defined.

Creating a New Query using the Query Wizard

In LibreOffice you can create a new query using the Query Wizard:

1. Open the database file where you want to create the new query.
2. In the left pane of the database window, click the “Queries” icon.
3. Click “Use Wizard to Create Query”.

Creating a New Query using the Design View

1. Open the database file where you want to create the new query.
2. In the left pane of the database window, click the "Queries" icon.
3. Click “Create Query in Design View”.

Working with Forms

Using forms, you can define how to present the data. Open a text document or a spreadsheet and insert the controls such as push buttons and list boxes. In the properties dialog of the controls, you can define what data the forms should display.

Creating a New Form With the Form Wizard

In LibreOffice, you can create a new form using the Form Wizard:

1. Open the database file where you want to create the new form.
2. In the left pane of the database window, click the “Forms” icon.
3. Click “Use Wizard to Create Form”.

Creating a New Form Manually

1. Open the database file where you want to create the new form.
2. In the left pane of the database window, click the “Forms” icon.
3. Click “Create Form in Design View”.
4. A new text document opens. Use the Form controls to insert the controls into the form.

Working with Reports

A report is a text document that either shows the current data or the data at the time the report was created.

Creating a New Report With the Report Wizard

In LibreOffice you can create a new report using the Report Wizard.

1. Open the database file where you want to create the new report.
2. In the left pane of the database window, click the “Reports” icon.
3. Click “Use Wizard to Create Report”.

9 Intelligent Input Bus (IBus)

9.1 IBus

The **Intelligent Input Bus (IBus)**, pronounced as I-Bus) is an input method (IM) framework for multilingual input in Unix-like operating-systems

How to Configure different Keyboard using SCIM in BOSS GNU/Linux

Open Gedit/vi/LibreOffice.

- 1.Press Windows Key + space to invoke toggle notification icon on task bar.
- 2.It will show menu of Input Methods available in BOSS GNU/Linux.
- 3.Select any language. Example Tamil.

Three different type of keyboards are supported

- i) **Phonetic Keyboard:** Keyboards are widely used and it has got the English keys in it. So, type some Indian language through this keyboard, the Indian alphabets are written phonetically (a combination of keys can be used to represent one Indian language character) using the English alphabets. For example, the first letter of hindi alphabet can be written as 'ka' through English phonetic keyboard.
- ii) **Inscript Keyboard :** Keyboards are used which contains Indian alphabets as the key of this keyboard. So by typing those keys the content of that language can be written.
- iii) **Remington Keyboard:** Keyboard also contains keys of the Indian languages and the arrangement of the keys follow the arrangement of a typewriter.

How to use I-Bus

Open the editor in which ever you want to type in different language, either Text Editor or LibreOffice.

Now press *Windows Key+Space* to activate the languages. You can see the languages activated in the bottom right corner as shown below:



Click on the window displayed like above, you will see the languages list and the respective keyboards supported. Select the language and keyboard support and start typing.

Supported Languages in BOSS GNU/Linux are Hindi, Tamil, Telugu, Malayalam, Punjabi, Marathi, Bengali, Gujarati, and Kannada.

Bengali Inscript Layout



Gujarati Inscript Layout



Kannada Inscript Layout



Malayalam Inscript Layout



Tamil Inscript Layout



Telugu Inscript Layout

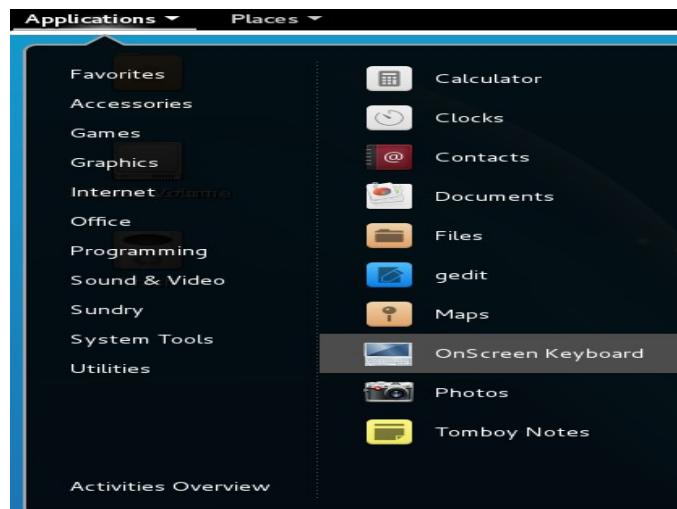


9.2 OnScreen Keyboard

OnScreen Keyboard is a utility that displays a virtual keyboard on the computer screen that allows people with mobility impairments to type data by using a pointing device or joystick. Besides providing a minimum level of functionality for some people with mobility impairments, OnScreen Keyboard can also help people who do not know how to type. On Screen Keyboard is the other way which allows you to type in your native language and create your documentations, mails etc.

Usage of the OnScreen Keyboard

1. Start the OnScreen Keyboard through **Applications -> Accessories -> OnScreen Keyboard** or type **eazykeyboard** in terminal and press *Enter*



2. Select the language from, “Languages” menu.



The extra letters along with the language indicate the type of keyboard layout.

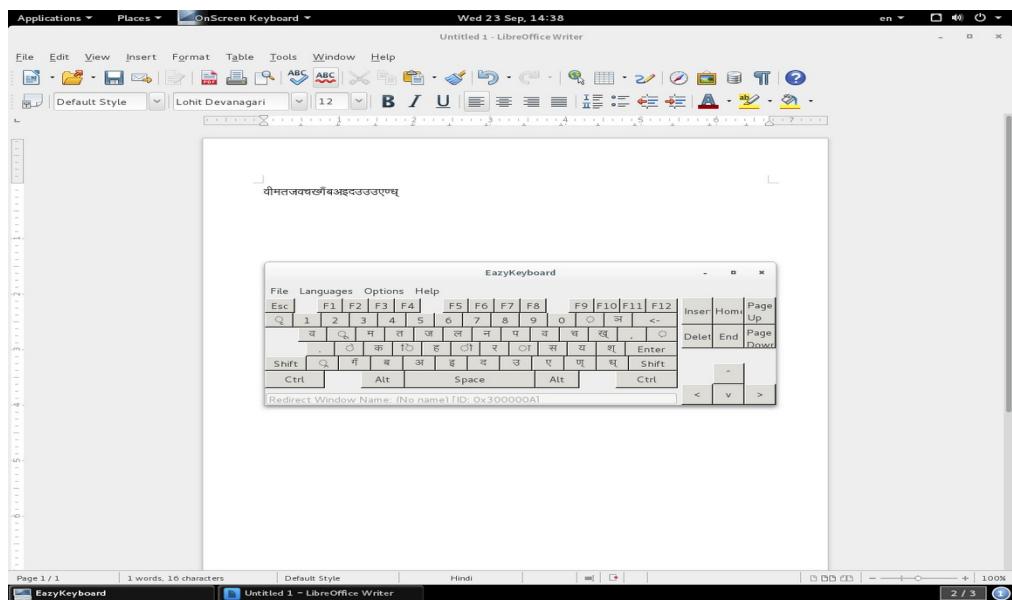
R – Remington

In – Inscript

eg: HindiR represents Hindi Remington Keyboard and Hindiln represents Hindi Inscript Keyboard

3. Type in different languages

Now you can open any of your favorite editor, and start typing in Hindi, Tamil, Malayalam, Bengali, Kannada, Telugu, Punjabi, Gujarathi languages.



Enjoy using OnScreen Keyboard

10 Internet

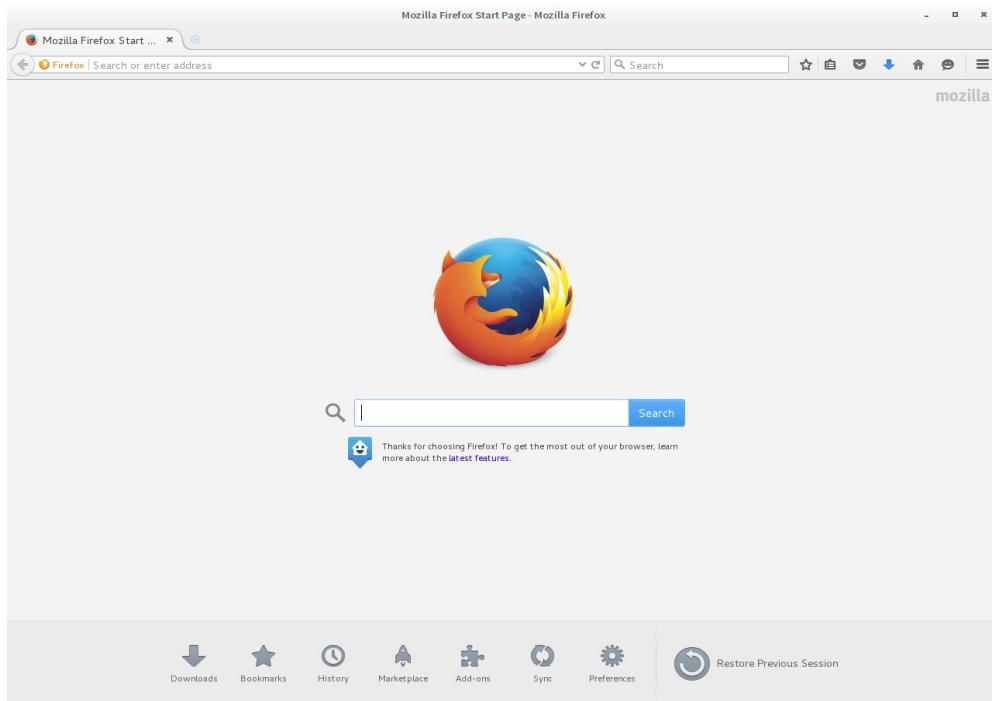
10.1 Browsing with Firefox

Included with BOSS is the Firefox Web browser. With features like tabs, pop-up window

blocking, and download and image management, Firefox combines the latest Web technologies. You can view more than one Web page in a single window. You can suppress annoying advertisements and disable images that only slow you down. Its easy access to different search engines helps you find the information you need.

To start Iceweasel choose **Applications -> Internet -> Firefox Web Browser** or type Firefox in terminal and press *Enter*.

Firefox has much the same look and feel as other browsers. The navigation toolbar includes Forward and Back buttons and a location bar for entering web address. Bookmarks are also available for quick access.



10.1.1 Tabbed Browsing

If you often use more than one web page at a time, tabbed browsing may make it easier to switch between them. Load Web sites in separate tabs within one window.

To open a new tab, select **File -> New Tab**. This opens an empty tab in the Firefox window. Alternatively, right-click a link and select “Open link in New Tab”. Right-click the tab itself to access more tab options. You can create a new tab, reload one or all existing tabs, or close them. You can also change the sequence of the tabs by dragging and dropping them on a requested position.

10.1.2 Using the Sidebar

Use the left side of your browser window for viewing bookmarks or the browsing history. To display the Sidebar, select **View -> Sidebar** and select the desired contents.

10.1.3 Finding Information

There are two ways to find information in Firefox: the search bar and the find bar. The search bar looks for pages while the find bar looks for things on the current page.

10.1.3.1 Finding Information on the Web

Firefox has a search bar that can access different engines, like Google, Yahoo, or Amazon. For example, if you want to find information about Bharat Operating System Solutions using the current engine, click in the search bar, type Bharat Operating System Solutions and hit Enter. The results appears in your window. To choose your search engine, click the icon to the left of the search bar. A menu opens with a list of available search engines.

Installing a different Search Engine

If your favorite search engine is not listed, Firefox gives you the possibility to configure it. Try the following steps:

1. Establish an Internet connection first.
2. Click the icon to the left of the search bar.
3. Select “Manage Search Engines...” from the menu.
4. Click “Get more search engines...”.
5. Firefox displays a web page with available search engines. You can choose from Wikipedia, IMDB, Flickr, and others. Click the desired search plug-in.
6. Install your search plug-in by clicking “Add” or abort with “Cancel”.

10.1.3.2 Searching in the Current Page

To search inside a web page, click **Edit -> Find** or press *Ctrl+F*. The find bar opens. Usually, it is displayed at the bottom of a window. Type your query in the input field. Firefox finds the first occurrence of this phrase. You can find other occurrences of the phrase by pressing *Ctrl+G* or “Next” button in the find bar. You can also highlight all occurrences by pressing the “Highlight all” button. Checking the “Match case” option makes the query case sensitive.

10.1.4 Managing Bookmarks

Bookmarks offer a convenient way of saving links to your favorite web sites. To add the current web site to your list of bookmarks, click **Bookmarks -> Bookmark This Page**. If your browser currently displays multiple web sites on tabs, only the URL on the currently selected tab is added

to your list of bookmarks.

When adding a bookmark, you can specify an alternative name for the bookmark and select a folder where Firefox should store it. To bookmark web sites on multiple tabs, select “Bookmark All Tabs...”. Firefox creates a new folder that includes bookmarks of each site displayed on each tab. To remove a web site from the bookmarks list, click “Bookmarks”, right-click the bookmark in the list, then click “Delete”.

10.1.4.1 Using the Bookmark Manager

The bookmark manager can be used to manage the properties (name and address location) for each bookmark and organize the bookmarks into folders and sections.

To open the bookmark manager, click **Bookmark -> Organize Bookmarks....** A window opens and displays your bookmarks. With **Organize ->New Folder**, create a new folder with a name and a description. If you need a new bookmark, click **Organize -> New Bookmark...** This lets you insert the name, location, keywords, and also a description. The keyword is a shortcut to your bookmark. If you need your newly created bookmark in the sidebar, check “Load this bookmark in the sidebar”.

10.1.4.2 Importing Bookmarks from Other Browsers

If you used a different browser in the past, you probably want to use your old bookmarks in Firefox, too. Firefox allows to import bookmarks from other browsers installed on your system such as Netscape or Opera. It also allows to import bookmarks from a file exported from a browser on different computer.

To import your settings, click **File -> Import**. Select the browser from which to import settings and click “Next” or choose a file. Find your imported bookmarks in a newly created folder, beginning with “From”.

10.1.4.3 Live Bookmarks

Live bookmarks display headlines in your bookmark menu and keep you up to date with the latest news. This enables you to save time with one glance at your favorite sites.

Many sites and blogs support this format. A Web site indicates this by showing an orange icon in the right part of the location bar. Click it and choose “Subscribe to this feed using Live Bookmarks” option. Click “Subscribe Now” in the page that opens. A dialog box opens in which to select the name and location of your live bookmark. Confirm by clicking “Add”.

10.1.5 Using the Download Manager

With the help of the download manager, keep track of your current and past downloads. To open the download manager, click **Tools -> Downloads**. Firefox opens a window with your downloads. While downloading a file, see a progress bar and the current file. If necessary, pause a download and resume it later. To open a downloaded file, right-click on the file and click

“Open”. To Remove, select “Remove From List”.

If you need further control of the download manager, open the configuration window from **Edit -> Preferences** and go to the Main tab. Here, determine the download folder and how the manager behaves.

10.1.6 Adding Smart Keywords to Your Online Searches

Searching the Internet is one of the main tasks a browser can perform for you. Firefox lets you define your own smart keywords: abbreviations to use as a “command” for searching the web. For example, if you use Wikipedia often, use a smart keyword to simplify this task:

- 1.Go to <http://en.wikipedia.org>.
- 2.After Firefox displays the web page, see the search text field. Right-click it then choose “Add a Keyword for this Search” from the menu that opens.
- 3.“Add Bookmark” dialog appears. In Name, name this web page, for example, Wikipedia (en).
- 4.For Keyword, enter your abbreviation of this Web page, for example, wiki.
- 5.With Create in, choose the location of the entry in your bookmarks section. You can put it into any folder.
- 6.Finalize with “Add”.

You have successfully generated a new keyword. Whenever you need to look into Wikipedia, you do not have to use the entire URL. Just type wiki Linux to view an entry about Linux.

10.1.7 Printing from Firefox

Configure the way Firefox prints the content it displays using the “Page Setup” dialog. Click **File -> Page Setup...** and select the orientation of your print jobs. You can scale or make it adjust automatically.

After you configured your settings, print a web page with **File -> Print...** Select the printer or a file in which to save the output. Change the required settings. When satisfied with your settings, approve with “Print”.

10.2 Mail Client

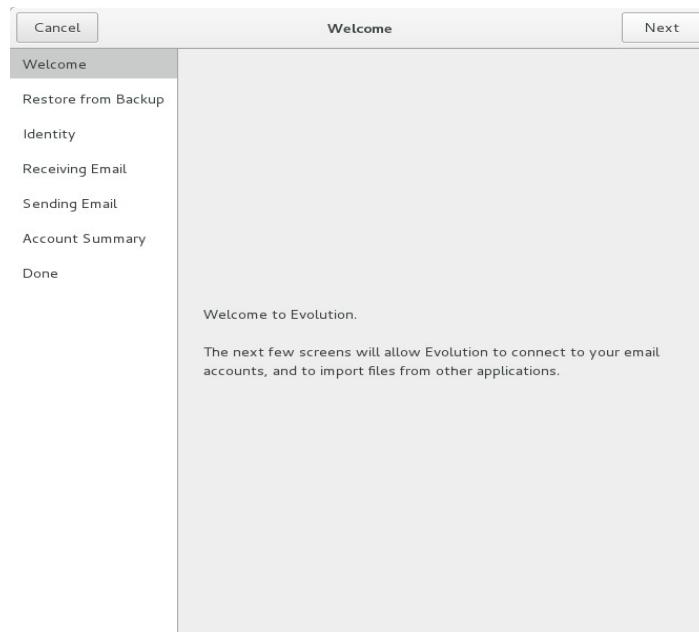
An e-mail client, also called a mail user agent (MUA), is a computer program that is used to receive and send email. Features such as storage of mails in the local system, taking backup of the mails, filtering them into filters are all well supported by our mail client, Evolution.

10.2.1 Evolution

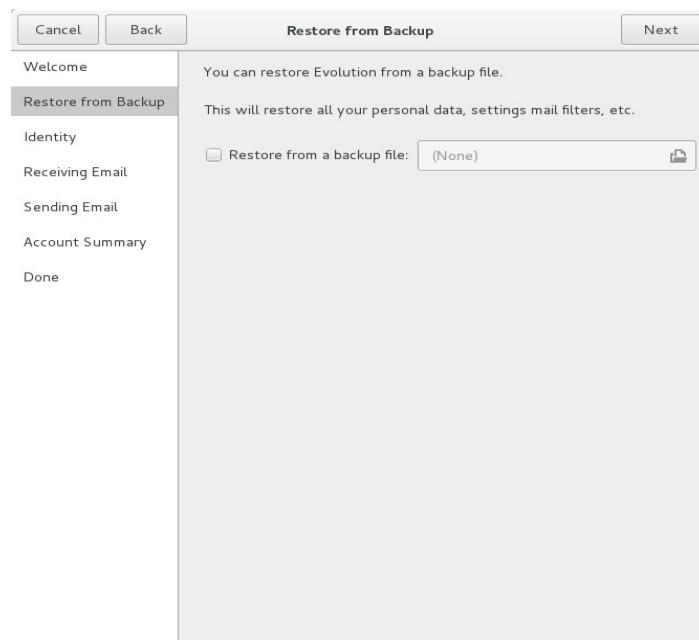
This section briefly covers the basic steps for sending and receiving email with Evolution.

To start Evolution, choose **Applications -> Internet -> Evolution** or type evolution in terminal and press *Enter*.

1. You are presented with a New Account Setup screen.

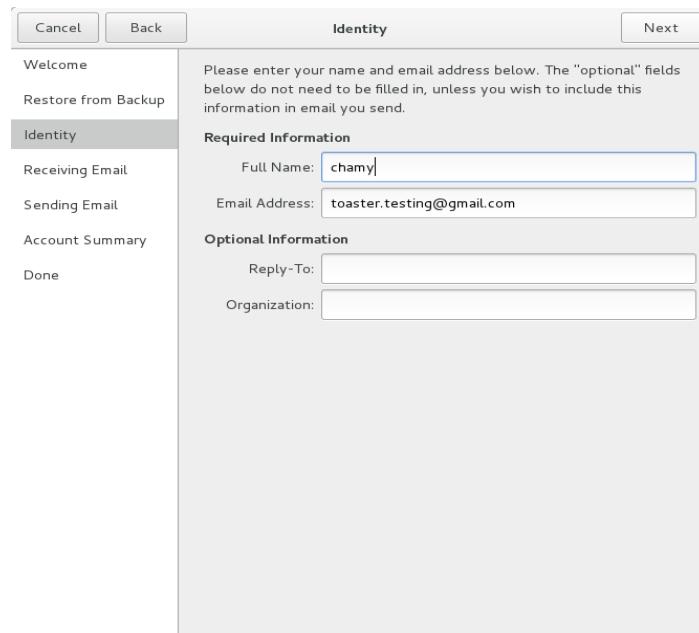


2. If user want restore from the backup file, click the option and specify the file location otherwise click the "Next".



3.In “Full Name” field enter the name you like to appear in the “From” field of your outgoing messages.

In “Email Address” field enter your email address



4.It will automatically connect to respective email servers if this give correct information then click “next” otherwise “back” to change the details of the email account and email

server related details.

Cancel	Back	Account Summary	Skip Lookup	Next
		This is a summary of the settings which will be used to access your mail.		
		Account Information		
		Type the name by which you would like to refer to this account. For example, "Work" or "Personal".		
		Name: toaster.testing@gmail.com		
		Personal Details		
		Full Name: chamy	Sending	
		Email Address: toaster.testing@gmail.com		
		Receiving	Sending	
		Server Type: imapx	smtp	
		Server: imap.googlemail.com	smtp.googlemail.com	
		Username: toaster.testing@gmail.c...	toaster.testing@gmail.c...	
		Security: SSL	SSL	
		Google Features		
		<input checked="" type="checkbox"/> Add Google Calendar to this account		
		<input checked="" type="checkbox"/> Add Google Contacts to this account		
		You may need to enable IMAP access		

5.Enter the username given to you by the email provider for receiving mails

Cancel	Back	Receiving Email	Skip Lookup	Next	Finish	
		Server Type: IMAP+				
		Description: For reading and storing mail on IMAP servers.				
		Configuration				
		Server: imap.googlemail.com	Port:	993		
		Username: toaster.testing@gmail.com				
		Security				
		Encryption method: SSL on a dedicated port				
		Authentication				
		Check for Supported Types				

6.Receiving options are chose by user for his convenience.

Cancel Back Receiving Options Skip Lookup Next Finish

Welcome Restore from Backup Identity Receiving Email Receiving Options Sending Email Account Summary Done	<p>Checking for New Mail</p> <p><input checked="" type="checkbox"/> Check for new messages every <input type="text" value="60"/> - + minutes</p> <p><input type="checkbox"/> Check for new messages in all folders</p> <p><input type="checkbox"/> Check for new messages in subscribed folders</p> <p><input type="checkbox"/> Use Quick Resync if the server supports it</p> <p><input type="checkbox"/> Listen for server change notifications</p> <p>Connection to Server</p> <p>Number of concurrent connections to use <input type="text" value="3"/> - +</p> <p>Folders</p> <p><input type="checkbox"/> Show only subscribed folders</p> <p>Options</p> <p><input type="checkbox"/> Apply filters to new messages in all folders</p> <p><input checked="" type="checkbox"/> Apply filters to new messages in Inbox on this server</p> <p><input type="checkbox"/> Check new messages for Junk contents</p> <p><input type="checkbox"/> Only check for Junk messages in the INBOX folder</p> <p><input type="checkbox"/> Automatically synchronize remote mail locally</p>
---	--

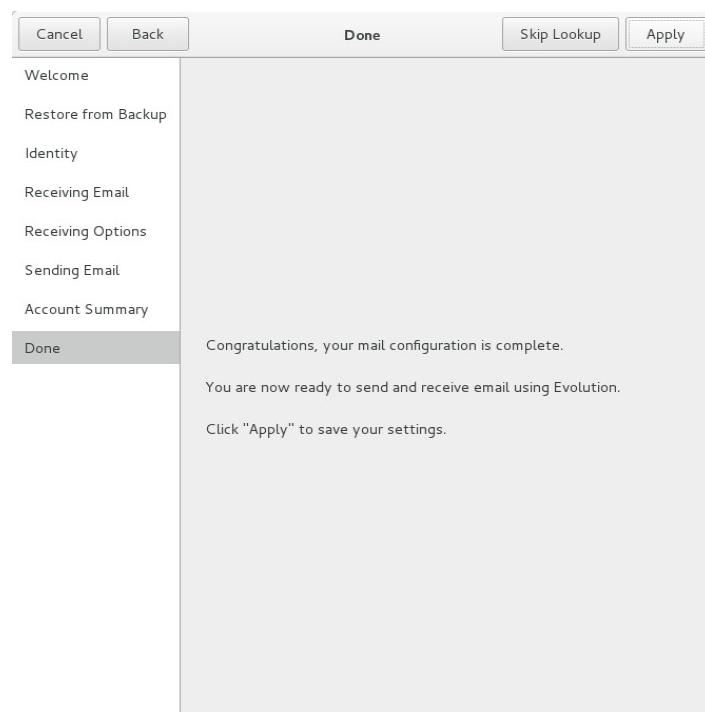
7. Enter the sending mail server details and other and port details

Cancel Back Sending Email Skip Lookup Next Finish

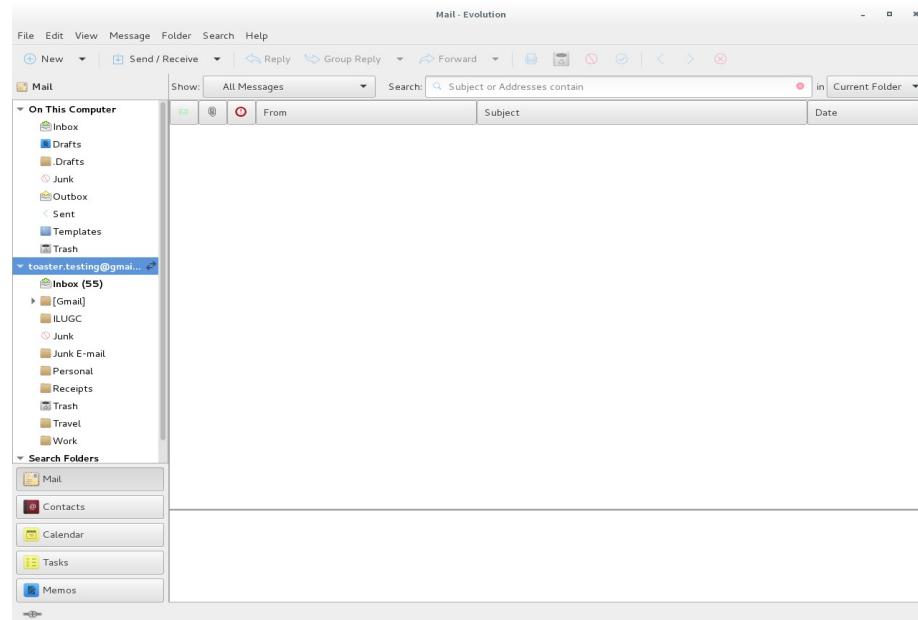
Welcome Restore from Backup Identity Receiving Email Receiving Options Sending Email Account Summary Done	<p>Server Type: <input type="text" value="SMTP"/></p> <p>Description: For delivering mail by connecting to a remote mailhub using SMTP.</p> <p>Configuration</p> <p>Server: <input type="text" value="smtp.googlemail.com"/> Port: <input type="text" value="465"/> <input checked="" type="checkbox"/> Server requires authentication</p> <p>Security</p> <p>Encryption method: <input type="text" value="SSL on a dedicated port"/></p> <p>Authentication</p> <p>Type: <input type="text" value="Login"/> <input type="button" value="Check for Supported Types"/></p> <p>Username: <input type="text" value="toaster.testing@gmail.com"/></p>
---	--

8. A screen showing the account information appears. Click “Apply” to save these

settings and exit the account wizard.



Now your account is created .



Now you can use your Evolution mail client to view your mails and send mails with different formatting, colors, attachments etc. You can even import your address books from the outlook

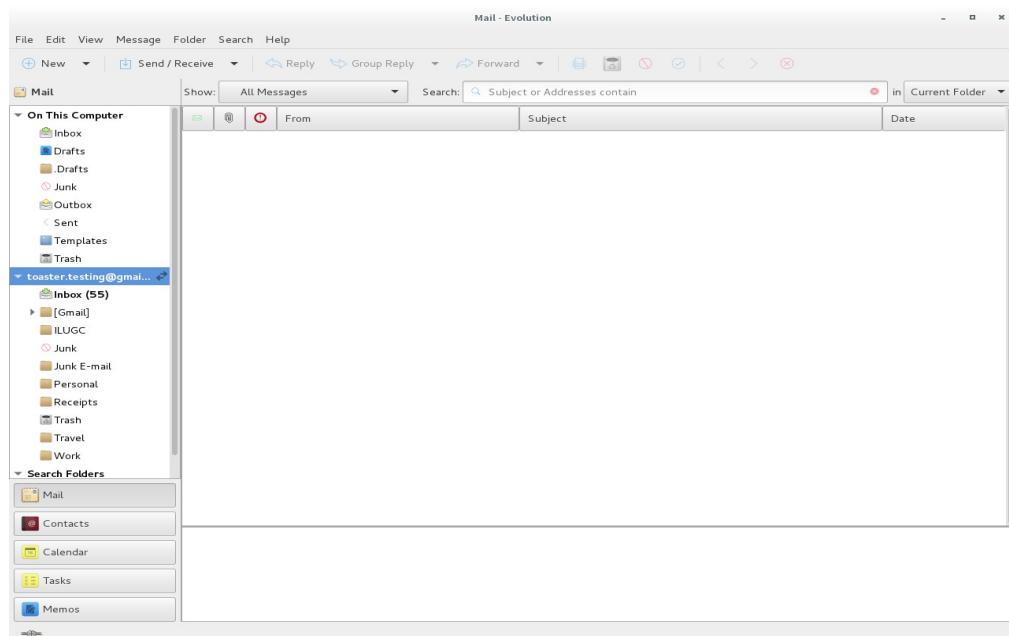
express or any other mail client. The procedure is as simple as the account creation.

- 1.Export the address book from your mail server into the Evolution format. It may be .LDIF,.tab, .csv, txt.
- 2.Open the Evolution mail client, go to **Evolution → Contacts**, which opens the address book interface.
- 3.Go to **Actions → Copy All Contacts To** , and select locate the location from the wizard displayed.
- 4.Select the file that you have just exported into your system and click “next”
- 5.Now all your addresses from the address book are in your Evolution.

The similar way you can take backup of addresses into a file and import in any other mail client, which supports the specified formats.

1.Save the E-mails into your local system

You have “**Local folders**” in your Evolution window, which are the folders in your local system hard disk and the content stored in these folders can be viewed when you are off-line and can



save your mails in these folders to save the mail server memory space. Create your own folder by right clicking on the “Local Folders” and click “New Folder...”

- 1.Once you have your local folders ready named as per your comfort, open your inbox in the Evolution mail client, select the mails that you want to save in the local folders (use Ctrl key to select more than one mail) and right-click. It opens a menu, where you can see options like “Copy To” (copies the mails to local folders) and “Move To” (deletes the mails from the server and moves into the local folders), select that “Move To” and then

the target folder where you want to move the mails to.

2.Thats it, now you have your mails stored in your local system.

2. Backup Mails and other Settings

To take the backup of your mails,address book and settings from Evolution, when you reinstall the operating system or change your system, you have to take the backup of the Evolution settings folder and paste it in the same location of the new Operating system.

Backup your Evolution email and other config files in the following way -

1.The files are stored in the .mozilla-thunderbird directory which resides in your home directory.

2.Assuming the home directory is /home/admin. *Please replace it with your own in the following commands -*

open the terminal and execute the following commands

```
[admin@spooky ~]$ tar cvfz mythund_bkp.tar.gz /home/admin/.mozilla-thunderbird/
```

3.The above command will create an archive named “mythund_bkp.tar.gz”

You can use this archive to restore all your files in case of any problems using the following command and your emails will be restored -

```
[admin@spooky ~]$ tar xvf mythund_bkp.tar.gz
```

4.Start Evolution and your emails will be in place. The advantage of the above method is that it not only restores emails but also your settings. So you do not have to reconfigure your IMAP mailboxes etc. Even your extensions are preserved.

10.3 Empathy

Empathy is a messaging program which supports text, voice, video chat, and file transfers over many different protocols. You can tell it about your accounts on all those services and do all your chatting within one application.

Empathy uses Telepathy for protocol support and has a user interface based on Gossip. Empathy is the default chat client in current versions of GNOME, making it easier for other GNOME applications to integrate collaboration functionality using Telepathy.

To login and chat with gtalk follow the below screen shots.

Add new account

What kind of chat account do you have? Google Talk ▾

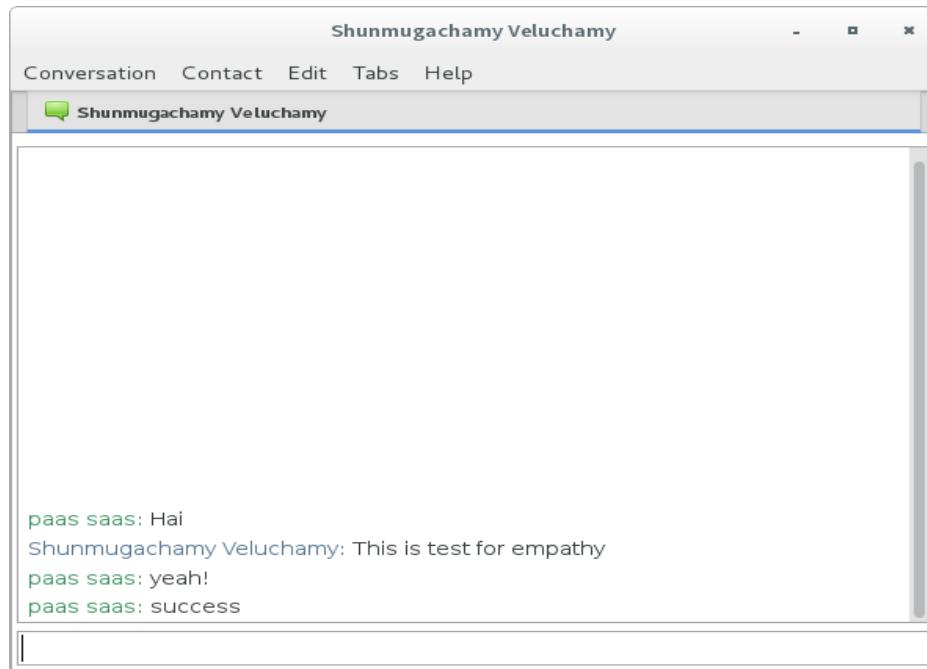
What is your Google ID?
toaster.testing@gmail.com
Example: user@gmail.com

What is your Google password?
••••••••••••
 Remember password

Close Add

Messaging and VoIP Accounts

toaster.testing@gmail.com + - Help	<p style="text-align: center;">talk toaster.testing@gmail.com ON Connecting...</p> <p>These details will be shared with other users on this chat network.</p> <p>Identifier Alias shunmugachamy Edit Personal Information</p> <p style="text-align: right;">Edit Connection Parameters... Close</p>
--	--

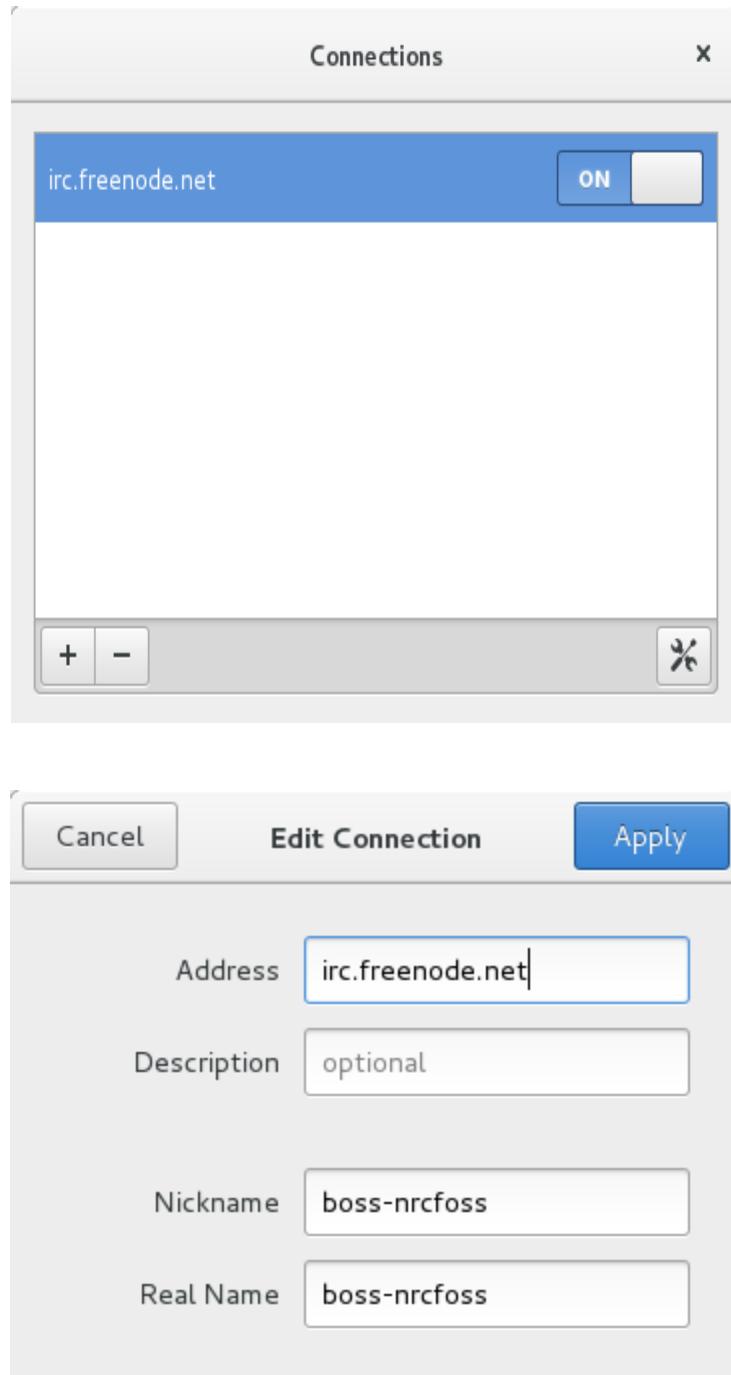


10.4 Polari

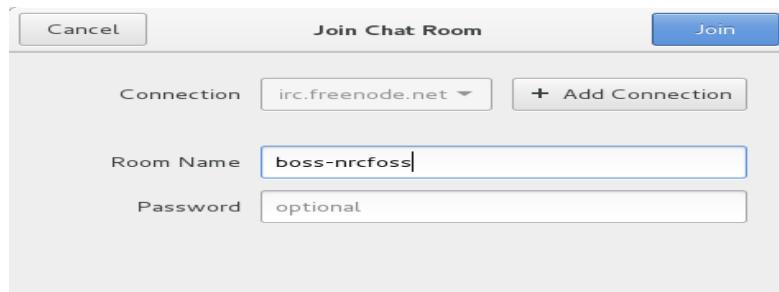
Polari is an IRC chat client designed to integrate with the GNOME desktop. Polari supports group chatting in chat rooms and private messaging on a wide range of popular IRC servers.

To start Polari choose **Applications -> Internet -> Polari** or type polari in terminal and press **Enter**.

To add connection click the **polari → connections → + option** then give the details.

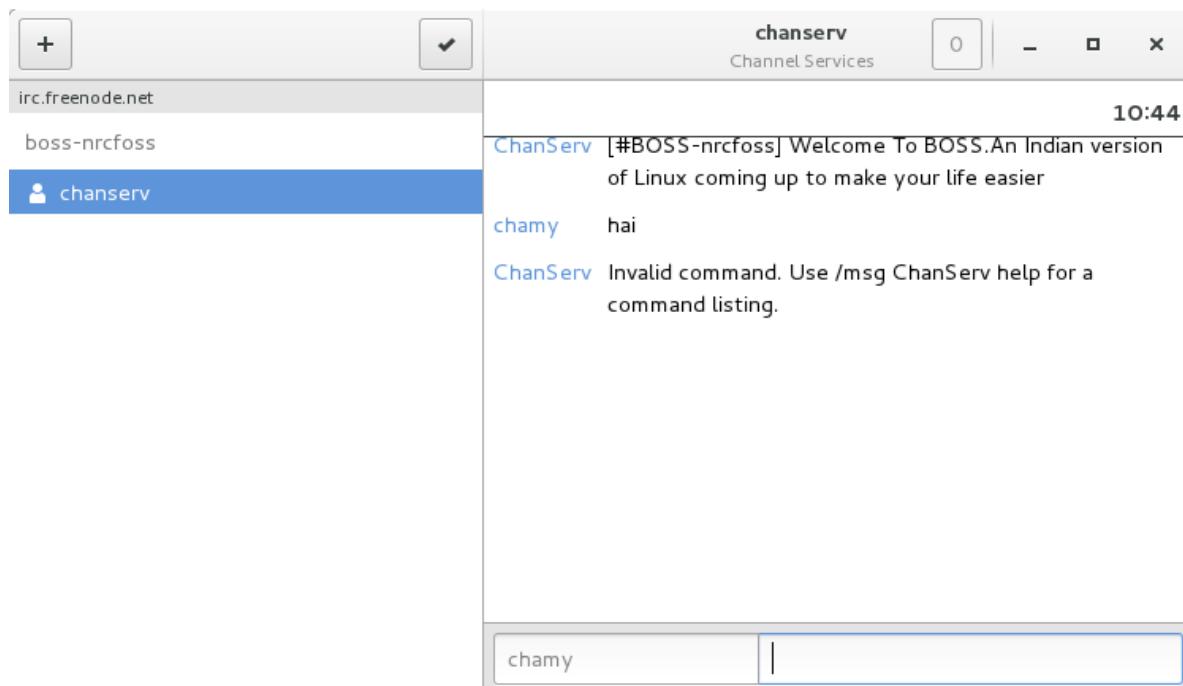


Whether Polari is online or offline, your conversation history is always available.



Click the “+” option to join the room for chat. If you know the name of the channel, type the channel name e.g. boss-nrcfoss

Once you've given the name of a channel, Polari should join it for you and you can start chatting by typing the queries in the text box at the bottom of the window.



10.5 Dictionary

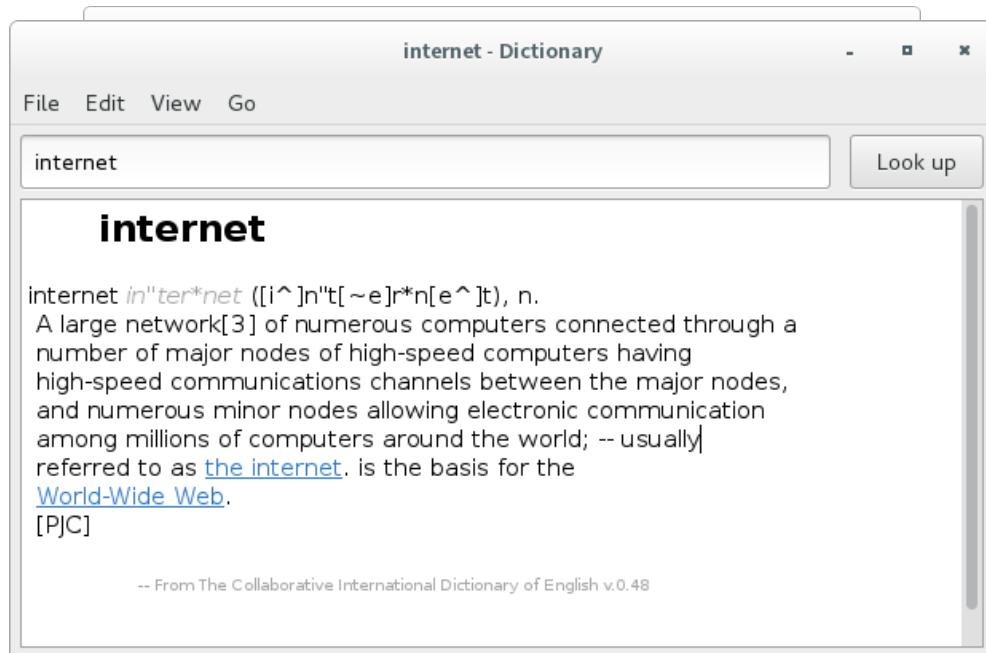
The Dictionary application enables you to search words and terms on a dictionary source.

To start dictionary choose, **Applications -> Office -> Dictionary** or type **gnome-dictionary** in terminal and press *Enter*.



Looking up a word

To look up a word, type that word in the text box and press *Enter*. If some definition for the word is found, it will appear inside the main window area.



Saving the result of the word

To save the results of the word, choose **File -> Save a Copy...**

Printing the result of the word

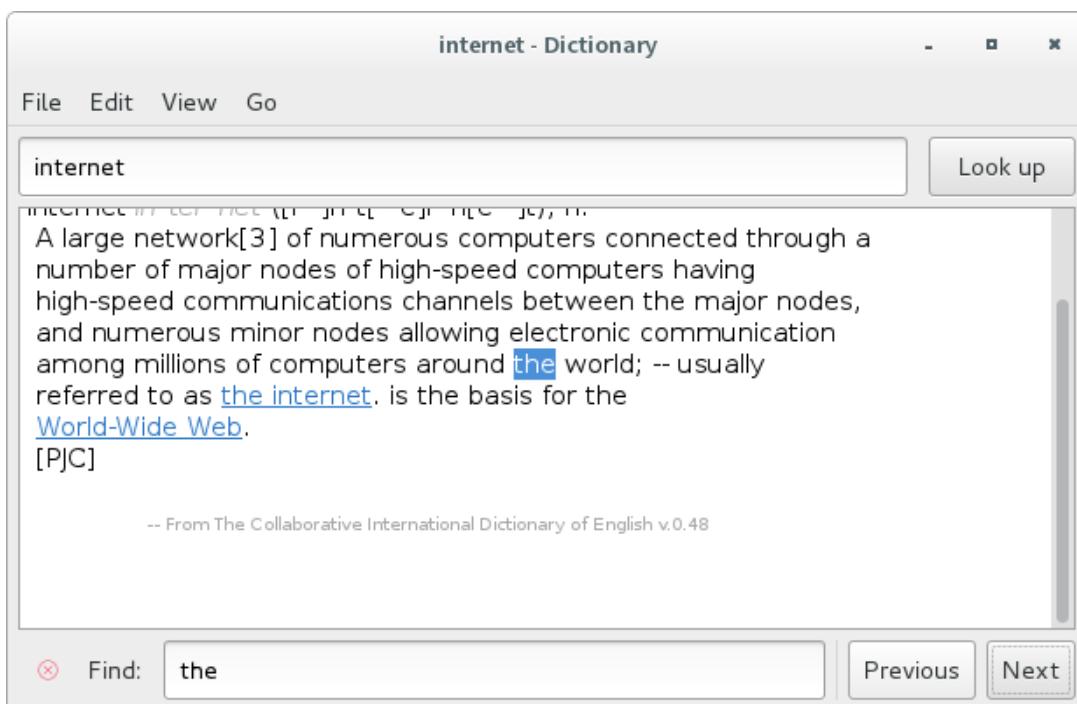
To print the result of the word, choose **File -> Print...**

Inside the Print dialog you can select the printer to use, the paper format, the number of copies.

To see a preview of what will be printed, click “Preview”.

To print, click “Print”.

Find text



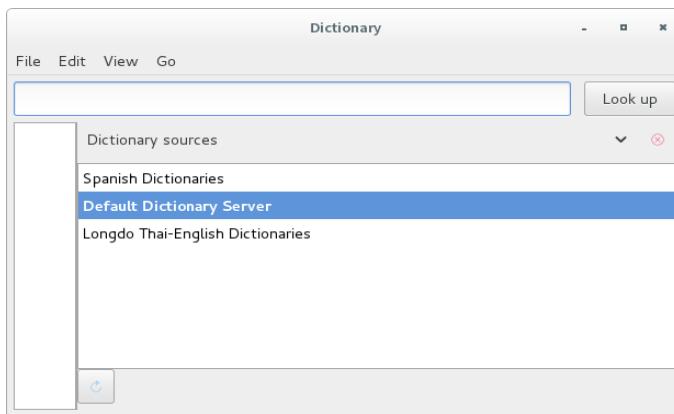
To find out a particular word from the displayed result, choose **Edit -> Find**. In the bottom a text box appears. In that type the word to find.

To find the next occurrence of the text, click “Next”.

To find the previous occurrence of the text, click “Previous”.

Dictionary Sources

To view dictionary sources click View → **Dictionary Sources**

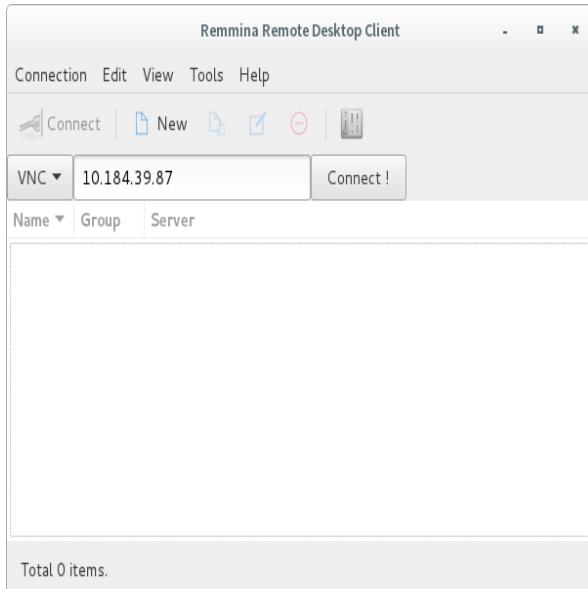


A list of available sources will be displayed. Click on the source from which you want to look up words.

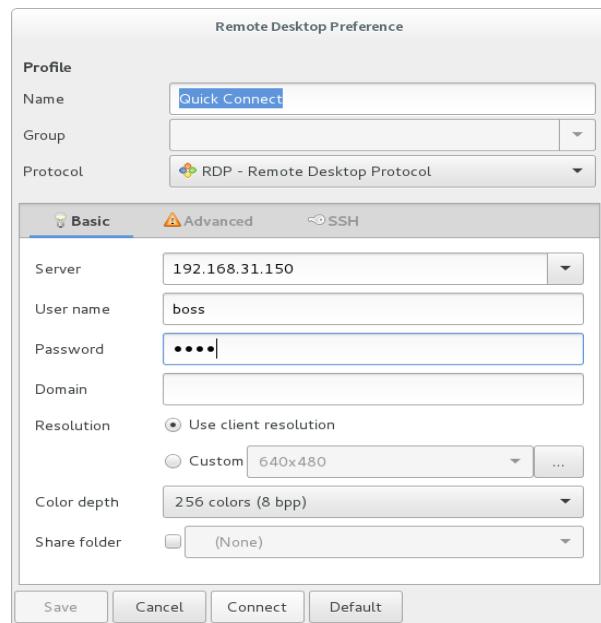
10.6 Remmina Remote Desktop Client

Remmina is a remote desktop client written in GTK+, aiming to be useful for system administrators and travelers, who need to work with lots of remote computers in front of either large monitors or tiny net-books. Remmina supports multiple network protocols in an integrated and consistent user interface. Currently RDP, VNC, XDMCP and SSH are supported.

To start dictionary choose, **Applications -> Internet -> Remmina Remote Desktop Client** or type **remmina** in terminal and press *Enter*.

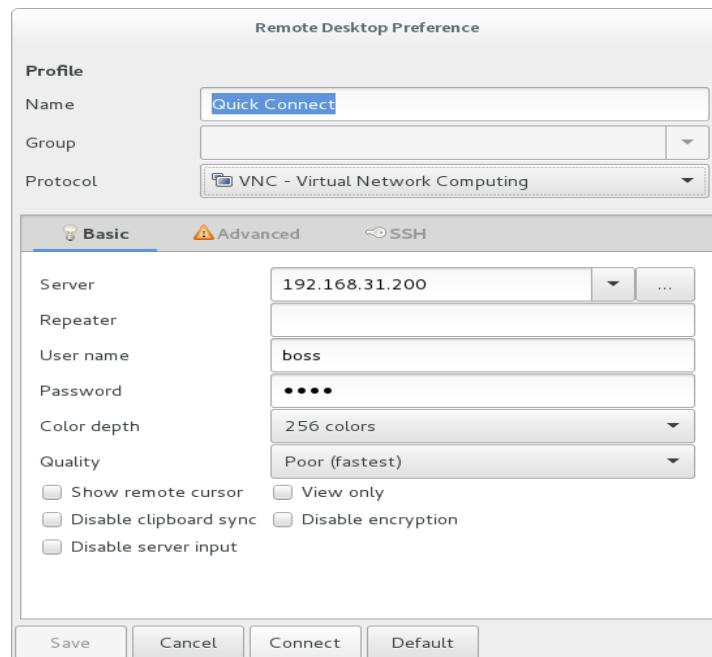


Select the protocol to connecting to the remote system.



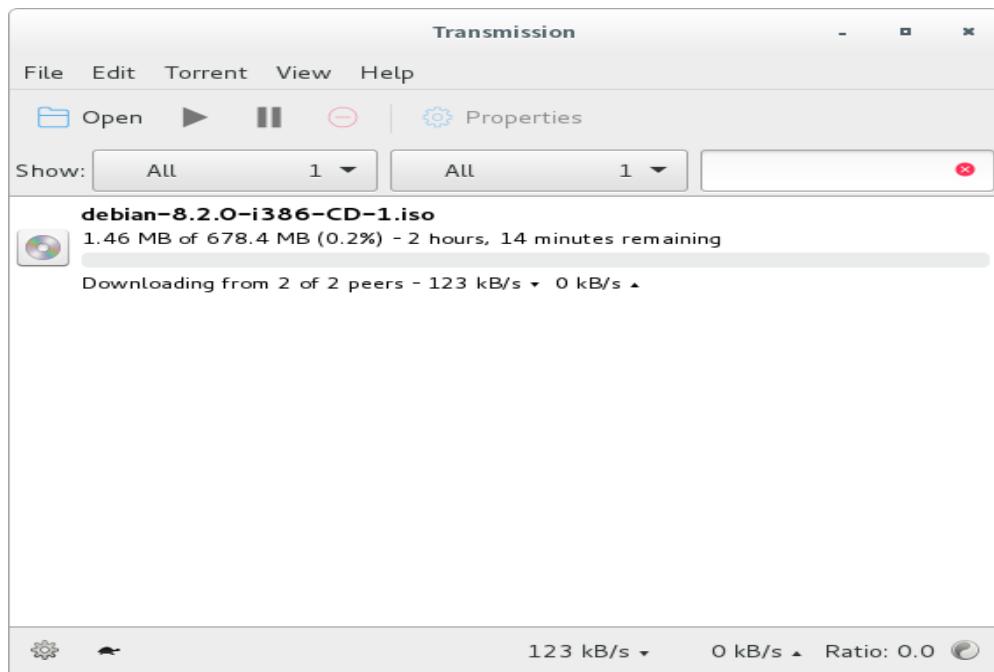
VNC -Virtual Network Computing

Select protocol VNC -Virtual Networking then select server address and enter .
Give remote desktop user name and password to connect.



10.8 Transmission

Transmission is a BitTorrent client. It is used for peer to peer file sharing over the Internet. BitTorrent is a fast way of transferring files, because everyone who downloads must also upload to others. This means speeds are only limited by the number of people connected to a given torrent - the more people the better!



11 Graphics

11.1 GIMP

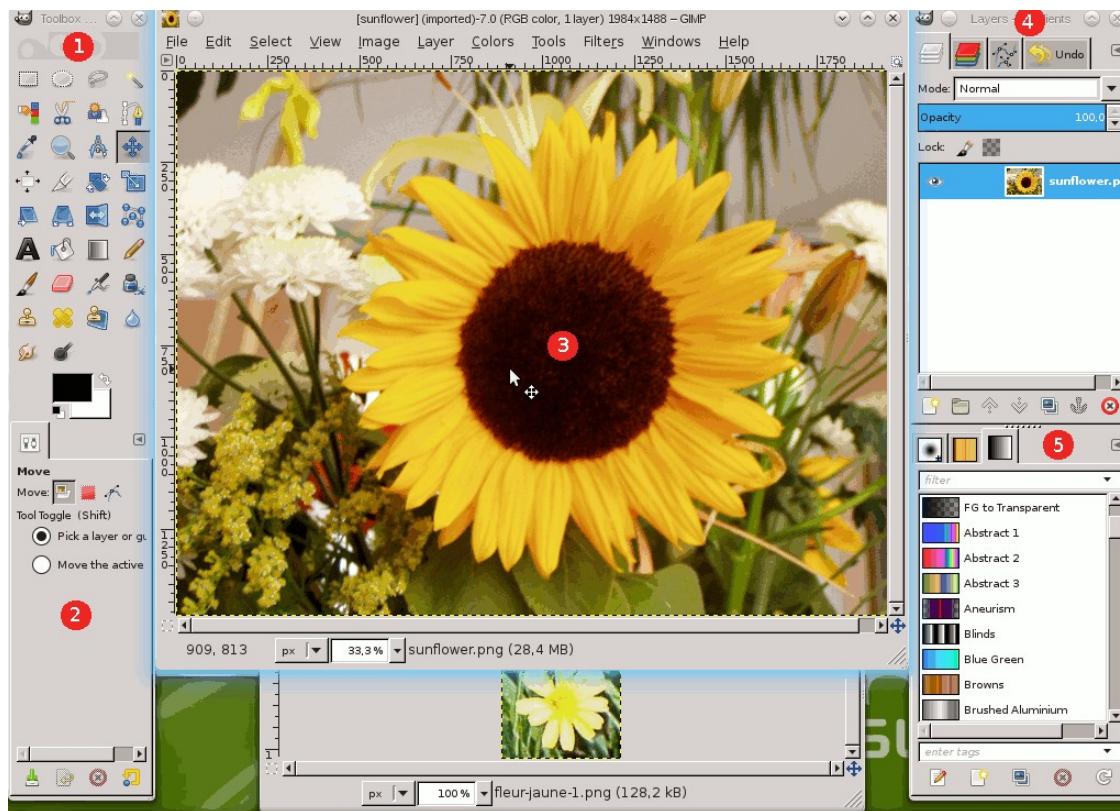
Main Windows

The GIMP user interface is now available in two modes:

1. multi-window mode,
2. single window mode.

When you open GIMP for the first time, it opens in multi-window mode by default. You can enable single-window mode through Windows → >Single-Window Mode) in the image menu bar. After quitting GIMP with this option enabled, GIMP will start in single-window mode next time.

Multi-Window Mode



The screenshot above shows the most basic arrangement of GIMP windows that can be used effectively.

You can notice two panels, left and right, and an image window in middle. A second image is partially masked. The left panel collects Toolbox and Tool Options dialog together. The right panel collects layers, channels, paths, undo history dialogs together in a multi-tab dock, brushes, patterns and gradients dialogs together in another dock below. You can move these panels on screen. You can also mask them using the Tab key.

1.The Main Toolbox:

Contains a set of icon buttons used to select tools. By default, it also contains the foreground and background colors. You can add brush, pattern, gradient and active image icons. Use Edit → Preferences → Toolbox to enable, or disable the extra items.

2.Tool options:

Docked below the main Toolbox is a Tool Options dialog, showing options for the currently selected tool (in this case, the Move tool).

3.Image windows:

Each image open in GIMP is displayed in a separate window. Many images can be open at the same time, limited by only the system resources. Before you can do anything useful in GIMP, you need to have at least one image window open. The image window holds the Menu of the main commands of GIMP (File, Edit, Select...), which you can also get by right-clicking on the window.

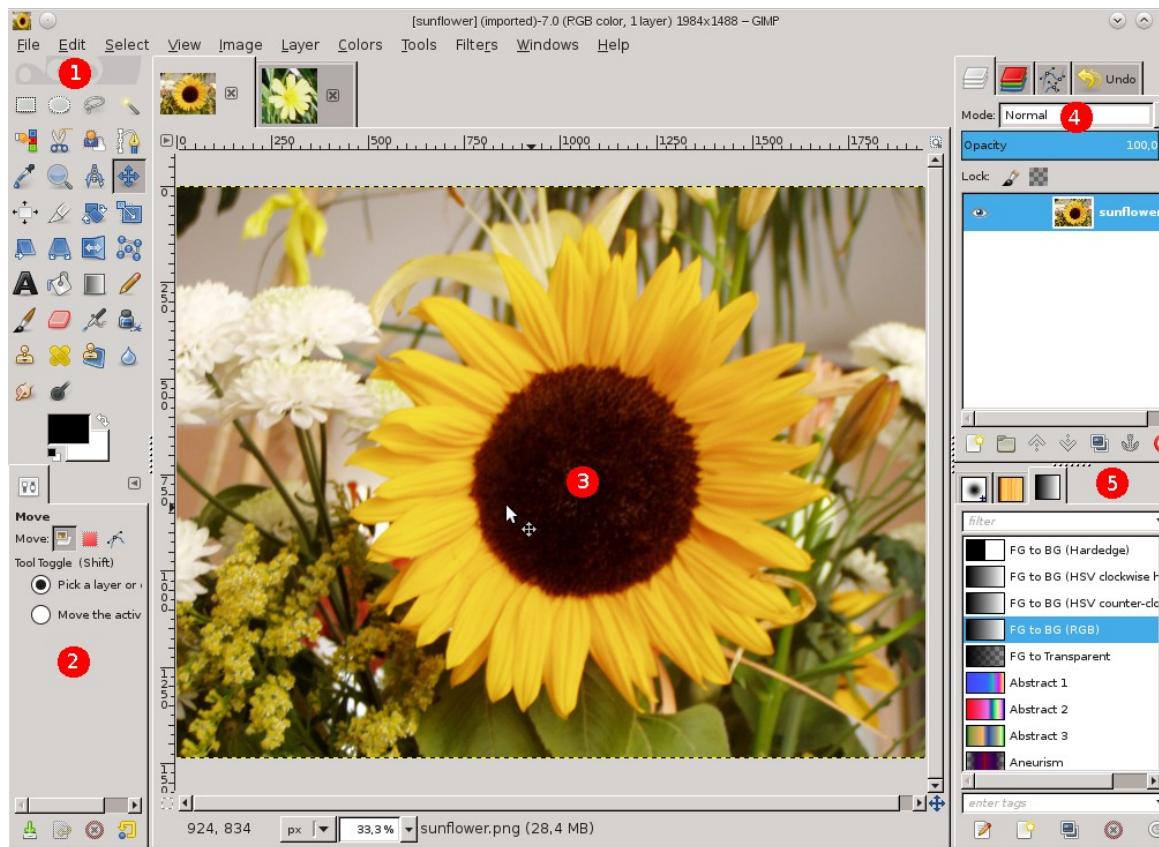
An image can be bigger than the image window. In that case, GIMP displays the image in a reduced zoom level which allows to see the full image in the image window. If you turn to the 100% zoom level, scroll bars appear, allowing you to pan across the image.

4.The Layers, Channels, Paths, Undo History dock — note that the dialogs in the dock are tabs. The Layers tab is open : it shows the layer structure of the currently active image, and allows it to be manipulated in a variety of ways. It is possible to do a few very basic things without using the Layers dialog, but even moderately sophisticated GIMP users find it indispensable to have the Layers dialog available at all times.

5.Brushes/Patterns/Gradients:

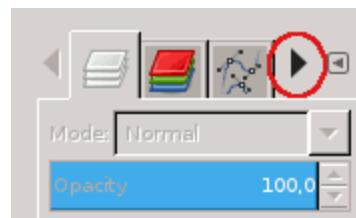
The docked dialog below the layer dialog shows the dialogs (tabs) for managing brushes, patterns and gradients.

Single Window Model



You find the same elements, with differences in their management:

Left and right panels are fixed; you can't move them. But you can decrease or increase their width. If you reduce the width of a multi-tab dock, there may be not enough place for all tabs; then arrow-heads appear allowing you to scroll through tabs.



As in multi-window mode, you can mask these panels using the Tab key.

The image window occupies all space between both panels.

When several images are open, a new bar appears above the image window, with a tab

for every image. You can navigate between images by clicking on tabs or either using Ctrl+PageUp or PageDown or Alt+Number. “Number” is tab number; you must use the number keys of the upper line of your keyboard, not that of keypad (Alt-shift necessary for some national keyboards).

11.1.1 Toolbox

By default, only the Foreground-background icon is visible. You can add Brush-Pattern-Gradient icons and Active Image icon through **Edit → Preferences → Toolbox:** Tools configuration.

Tool icons:

These icons are buttons which activate tools for a wide variety of purposes: selecting parts of images, painting an image, transforming an image, etc.

Foreground/Background colors:

The color areas here show you GIMP's current foreground and background colors, which come into play in many operations. Clicking on either one of them brings up a color selector dialog that allows you to change to a different color. Clicking on the double-headed arrow swaps the two colors, and clicking on the small symbol in the lower left corner resets them to black and white.

Brush/Pattern/Gradient:

The symbols here show you GIMP'S current selections for: the Paintbrush, used by all tools that allow you to paint on the image (“painting” includes operations like erasing and smudging, by the way); for the Pattern, which is used in filling selected areas of an image; and for the Gradient, which comes into play whenever an operation requires a smoothly varying range of colors. Clicking on any of these symbols brings up a dialog window that allows you to change it.

Active Image: I

In GIMP, you can work with many images at once, but at any given moment, only one image is the “active image”. Here you find a small iconic representation of the active image. Click the icon to display a dialog with a list of the currently open images, click an image in the dialog to make it active. Usually, you click an image window in multi-window mode, or an image tab in single-window mode, to make it the active image.

11.1.2 Image Window

GIMP user interface is now available in two modes: multi-window mode (default), and single-window mode (optional, through Windows → >Single-Window Mode. But, if you quit GIMP with this option enabled, GIMP will open in single mode next time).

In single-window mode, no new window is added: images and dialogs are added in tabs. Please see Single Window Mode.

When user start GIMP without any image open, the image window seems to be absent in single-window mode, while, in multi-window mode, an image window exists, even if no image is open.

User will begin with a brief description of the components that are present by default in an ordinary image window. Some of the components can be removed by using commands in the View menu.

Title Bar: The Title Bar in an image window without an image displays “GNU Image Manipulating Program”. An image window with an image displays the image name and its specifications in the title bar according to the settings in Preference Dialog. The Title Bar is provided by the operating system, not by GIMP, so its appearance is likely to vary with the operating system, window manager, and/or theme — in Linux systems, this title bar has a button to display the image window on all your desktops. You also have this button in toolbox window and layer window.

If user have opened a non-xcf image, it is “(imported)” as a .xcf file and its original name appears in the status bar at the bottom of the image window.

When an image is modified, an asterisk appears in front of title.

Image Menu:

Directly below the Title Bar appears the Menu bar (unless it has been suppressed). The Image Menu provides access to nearly every operation you can perform on an image. You can also right-click on an image to display a pop-up image menu, or by left-clicking on the little “arrow-head” symbol in the upper left corner, called Menu Button, described just below. Many menu commands are also associated with keyboard shortcuts as shown in the menu. You can define your own custom shortcuts for menu actions, if you enable Use Dynamic Keyboard Shortcuts in the Preferences dialog.

Menu Button:

Click the Menu Button to display the Image Menu in a column,(essential in full screen mode). If you like to use keyboard shortcuts, use Shift+F10 to open the menu.

Ruler:

In the default layout, rulers are shown above and to the left of the image. Use the rulers to determine coordinates within the image. The default unit for rulers is pixels; use the settings described below to use a unit other than pixels.

One of the most important uses of rulers is to create guides. Click and drag a ruler into the image to create a guide. A guide is a line that helps you accurately position things—or verify that another line is truly horizontal or vertical. Click and drag a guide to move it. Drag a guide out of the image to delete it; you can always drag another guide into the image. You can even use multiple guides at the same time.

In ruler area, the mouse pointer position is marked with two small arrow-heads pointing vertically and horizontally.

QuickMask Toggle:

The small button in the lower left corner of the image toggles the Quick Mask on and off. When the Quick Mask is on, the button is outlined in red. See QuickMask for more details on this highly useful tool.

Pointer Coordinates:

When the pointer (mouse cursor, if you are using a mouse) is within the image boundaries, the rectangular area in the lower left corner of the window displays the current pointer coordinates. The units are the same as for the rulers.

Units Menu:

Use the Units Menu to change the units used for rulers and several other purposes. The default unit is pixels, but you can quickly change to inches, cm, or several other possibilities using this menu. Note that the setting of “Dot for dot” in the View menu affects how the display is scaled: see Dot for Dot for more information.

Zoom Button:

There are a number of ways to zoom the image in or out, but the Zoom Button is perhaps the simplest. You can directly enter a zoom level in the text box for precise control.

Status Area:

The Status Area is at the bottom of the image window. By default, the Status Area displays the original name of the image.xcf file, and the amount of system memory used by the image. Please use Edit → Preferences → Image Windows → Title & Status to customize the information displayed in the Status Area. During time-consuming operations, the status area temporarily shows the running operation and how complete the operation is.

11.2 Shotwell

To open F-Spot choose **Applications → Graphics → shotwell** or type **shotwell** in terminal and press *Enter*.

11.2.1 Organizing your photos

Import

To import an existing photo collection from F-Spot:

Select File ▶ Import From F-Spot.

Now choose either the default F-Spot library or another F-Spot database. If importing from another F-Spot database, select a directory and file from the chooser dialog box.

Shotwell will import your photos, together with their tags and other information. Once the import is complete, you can select Last Import in the sidebar to see all photos successfully imported. The Events list will also show new entries for the dates corresponding to the imported photos.

Importing from Camera

Connect the camera to your computer and switch it on. Shotwell will detect it and list it in the sidebar.

Select the camera in the sidebar. Previews of each photo on the camera will be displayed.

If you like, you can choose a set of specific photos to import. To do this, hold down the *Ctrl* key and click to select individual photos. You can hold down Shift and click to select a range of photos too.

Click either Import Selected or Import All. The photos will be copied from the camera and saved on your computer.

Once the import is complete, you can open the Last Import view (in the sidebar) to see all photos that were imported. The Events list (also in the sidebar) will also show the new photos, organized by date.

Importing from Memory Card

Put the card into your card reader. Make sure the card reader is plugged in to the computer and switched on.

The card reader and card should be detected automatically.

Follow the instructions for importing photos from your hard disk. If you click File ▶ Import From Folder, the memory card should be visible as a folder in the side bar of the file selection window.

Shotwell can import photos from any memory card that is compatible with your card reader.

If the card is not detected automatically, your card reader may not have been recognized. Try unplugging it and then plugging it in again. If that doesn't work, you should still be able to import photos by connecting your camera directly to the computer, though.

Edit

If you double click or press enter on an image, you enter Edit mode, where you can remove red-eye, crop, and adjust brightness and colors.

Versions

When you edit your photos, a new copy (called a version) is created, so your original is never altered. After your first edit a photo, subsequent edits will modify the same version. If you want to create multiple versions of your photo, perhaps with different cropping or coloring, you can do so via the **Photo -> Create New Version...** option.

Crop

Cropping an image is a great way to improve the quality of a photograph by improving how it is framed. You crop a photo by selecting the part of the photo you want to keep. If you want your photo to be the exact dimensions necessary for a certain print size, you can constrain the kind of selection. F-Spot will allow you to draw by choosing the appropriate size from the constraint drop down.

Once you have made your crop selection, you must click the crop button beneath the image to finalize the crop. If you are working with the original photo, cropping creates a new version your photo.

Straighten

Straighten effect is a tool to level a photo.

This tool rotates an image by a specified angle and automatically crops the resulted image, so that you always see a perfect rectangle.

Adjust Colors

To adjust the brightness, contrast, and colors of a photo, first click the “**Adjust the photo colors**” icon to open the “Adjust Color” dialog. Change then some settings and save them with OK.

AutoColor

This effect automatically adjusts color levels to make a pretty balanced picture color-wise. It serves best for pictures taken with automatical white balance, when camera didn't manage to do the job well.

Desaturate

To make a colorful photo a black and white one, open a photo of choice and press Desaturate button.

Sepia

To make a colorful photo look like an old-style picture in sepia tones, open a photo of choice and press Sepia button.

Remove Red-Eye

To remove redeye from a photo, you need to select a zone containing the eyes. You may want to zoom in on the image to accurately select the eyes in the photo. You should be able to correct both eyes on the same person in one shot, or even the eyes from multiple people at once. If this doesn't work for you, or the selected zone contains some vivid red parts (lips, ...) you'll probably have to correct one red eye at a time.

To make your selection, click one corner of the rectangle that will be your selection, and drag your mouse to the diagonal corner and release it. You can resize your selection by dragging its edges, and you can move it by clicking in the middle of it and dragging it to where you want it.

Once you have selected a zone, you can remove the red from it by clicking the red-eye button beneath the photo.

Soft Focus

In photography sharpening one region of a picture, while blurring all the rest, is a way to make an emphasis and grab attention. It is achieved by using a lens that allows shooting with a short distance in front of and beyond the subject that appears to be in focus. Soft focus effect is a way to emulate such a lens.

Click to choose central point of the area you want to be in focus and adjust amount of blurring, then click OK.

Sharpen

Out-of-focus photographs and most digitized images often need a sharpness correction. The Unsharp Mask effect sharpens edges of the elements without increasing noise or blemish. To sharpen a photo choose **Edit -> Sharpen...** and specify the following values:

- Amount — strength of sharpening.
- Radius — how many pixels on either side of an edge will be affected by sharpening. High resolution images allow higher radius.
- Threshold — the minimum difference in pixel values that indicates an edge where sharpen must be applied. This helps avoiding creation of blemishes in face, sky or water surface.

Describe

You can also enter a description of the image by clicking on the text entry box below the image and typing.

Adjust Time

In both 'browse' or 'edit' modes, you can adjust the time of one or multiple pictures (**Edit -> Adjust Time**).

Tag

F-Spot enables you to organize and enjoy your photos by associating them with various user-customizable tags. A tag is merely a label. F-Spot comes with default tags to get you started. You are free to change them and add new ones. For example, if you want to create a tag for specific event, you can create a new tag named after that event under the Events tag.

There are many ways to tag photos:

- drag and drop the photo(s) onto the tag
- drag and drop the tag onto the photo(s)
- via the photo's right-click menu
- via the Tags and Edit menus
- by typing them in (press t to pop up the tag entry bar, enter comma-separated tags) - with tab completion!

The first photo you associate with a tag will be used for that tag's icon. You can always edit a

tag's name, parent tag, and icon by right clicking on it and choosing Edit tag.

You can change a tag's parent by dragging and dropping it where you like. Also, you can edit the name of a tag by selecting it and pressing F2. Lastly, if you have the tag tree widget focused (e.g. you just clicked on a tag), you can start typing the name of a tag, and all the expanded tags in the list will be searched and you'll jump to any matching ones.

You can also change size of tag icons in the sidebar or even make tag icons invisible by selecting preferred option from **View -> Tag Icons** menu.

11.2.2 Enjoying your photos

Browse

You can use the slider widget to browse your photos by month or by directory. To change this setting, go to **View -> Arranged By**.

Fullscreen Mode and Slideshows

For fewer distractions and larger display, you can view your photos in full screen mode. You control when to show the next photo or to return to the previous. Enter fullscreen mode by pressing F11 at any time or by pressing the button in the toolbar.

In slideshow mode, you can sit back and view your photos as they are presented to you. You can start a slideshow by pressing the button on the toolbar.

11.2.3 Sharing your photos

There are many ways to share your photos using F-Spot. All of the following methods will only share the photos you have selected when you run them.

E-mail

E-mail your photos directly from F-Spot with the **Photo -> Send by Mail...** menu.

Print

Print your photos with the **Photo -> Print** menu.

Burn to CD

Burn your photos to CD or DVD with the **Photo -> Export to -> CD...** menu.

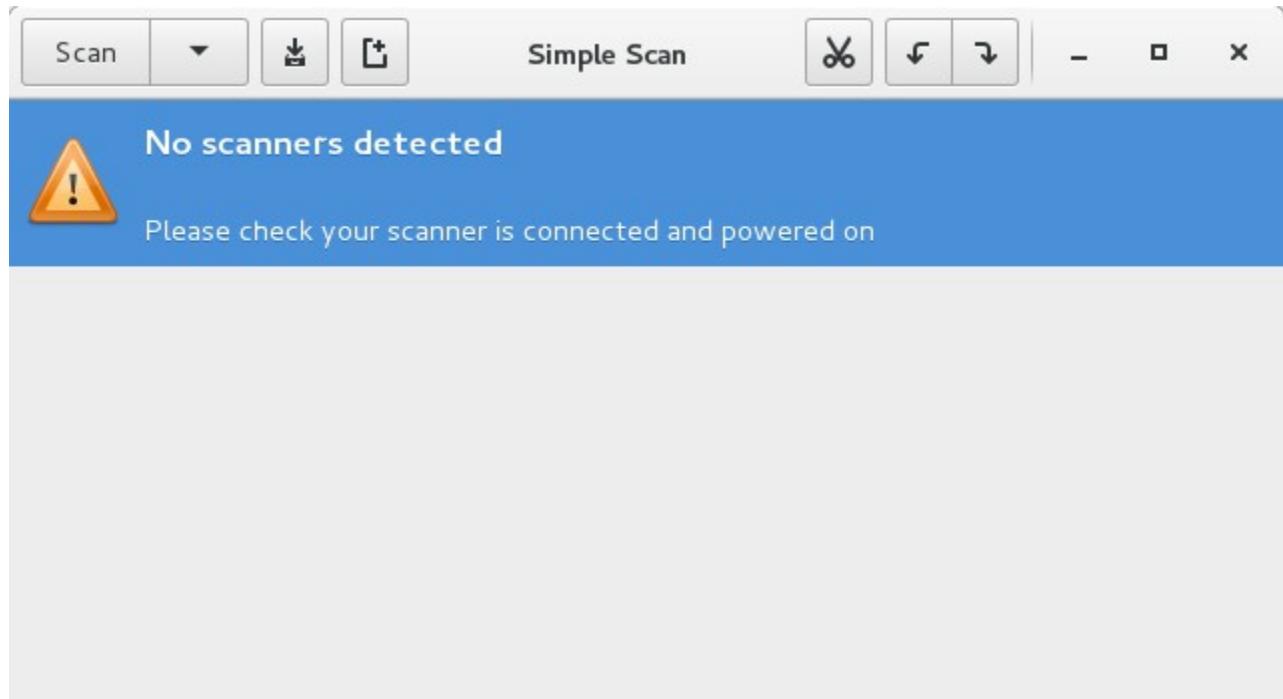
Post photos to your online galleries

If you use Flickr, SmugMug, 23hq or Picasa Web Album, you can post your files directly from F-Spot with the **Photo -> Export to** menu, choosing corresponding submenu item.

11.3 Scanner Usage

Plug-in the Scanner and select XSane Image Scanning Program from **Applications -> Graphics -> Simple Scan** or type **simple-scan** in terminal and press *Enter*

The scanner will be detected and the images can be scanned now.



12 Special Purpose Tools

12.1 Migration Tool

BOSS Bulk Document Converter

This converter allows you to convert one format of documents into the other format of documents like doc to pdf, doc to html etc.,

Usage:

- Place all the documents that need to be converted into one source folder and create an empty folder as destination folder.
- Choose **Applications -> Office->BOSS Bulk Document Converter** or type **converter** in terminal and press *Enter*.
- Select the source and destination folders and the respective formats to be converted.
- You will find your converted documents in the destination folder.

Source and Destination selection

Once we select the Bulk Document Converter, this window will open, where we browse the source and destination folder or copy and paste the pathname of the folders. Then click “Next” to proceed.

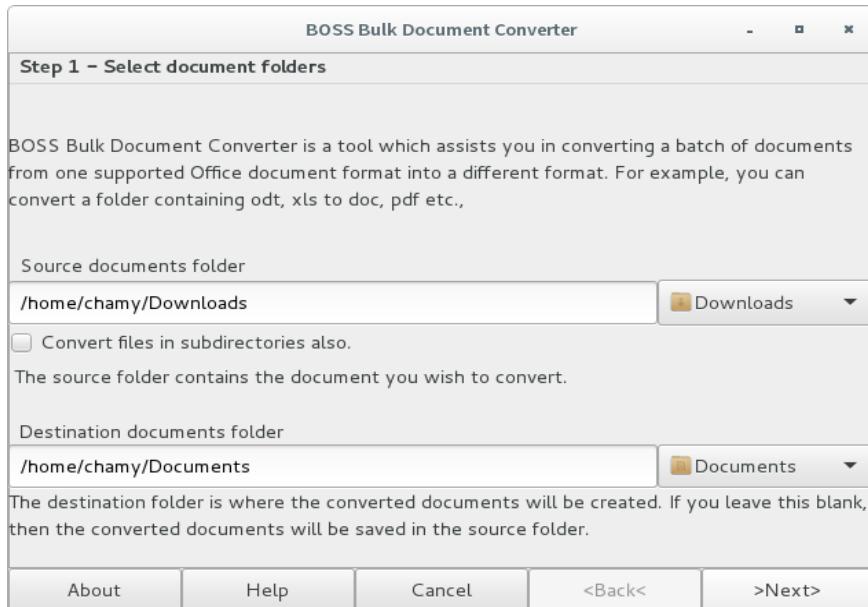


Figure 1. Source and Destination selection screen

Overall Document type

After the source and destination selection, there comes a first level of categorization of documents. According to the format of the source file, we have to select the document type.

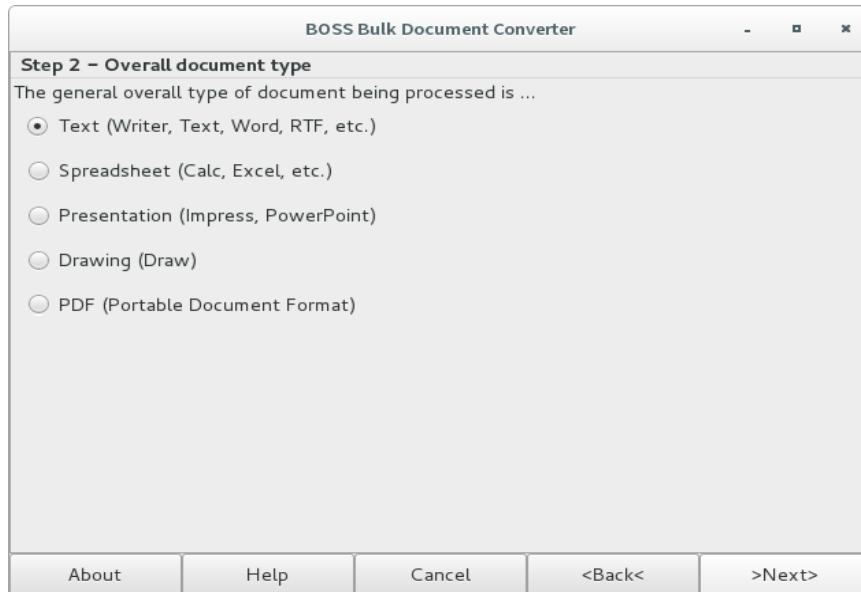


Figure 2. Overall Document type

Exact source format

Next, the sub-categories of the general overall document type, that we selected appears. Select the exact format of the source. Click “Next” and then proceed.

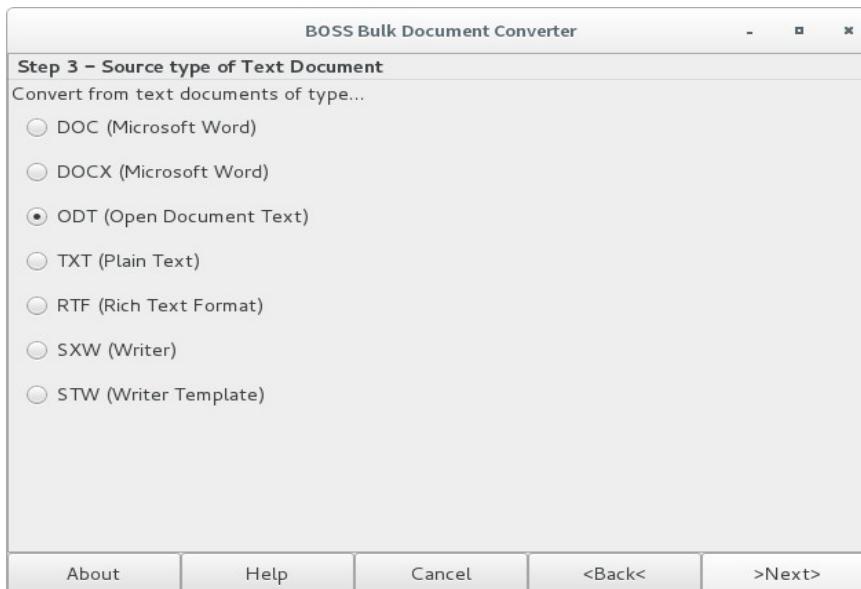


Figure 3. Source Document type

Destination type

The possible destination type format for the selected source format appears now. Select the appropriate format from the list. Once selected, click “Next” to proceed.

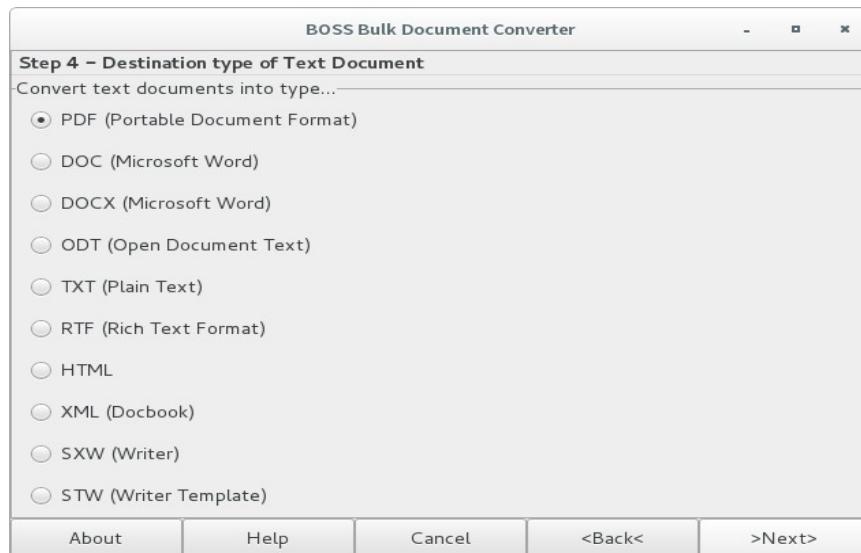


Figure 4. Destination Document type

Conversion

Finally, the warning page for the conversion appears, if you click “Next”, the conversion gets completed.

The screen shots are as follows:

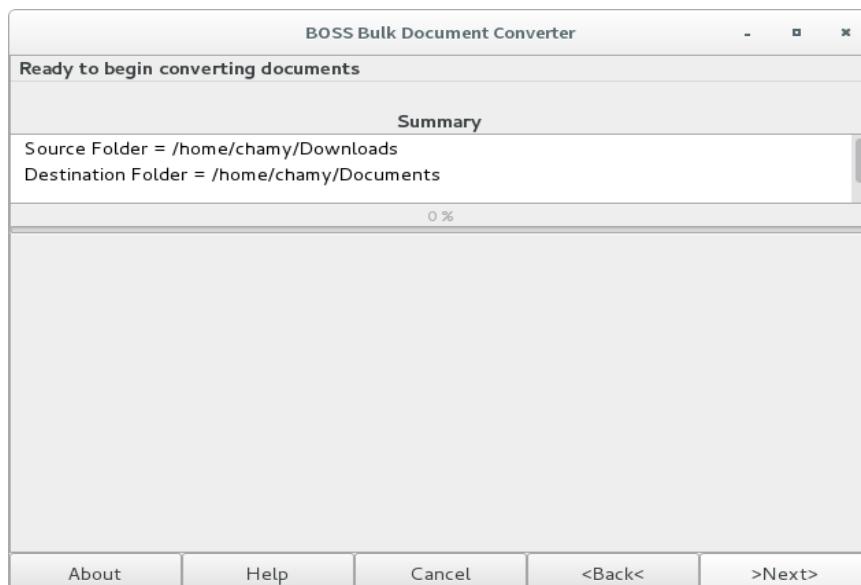


Figure 5. Warning screen

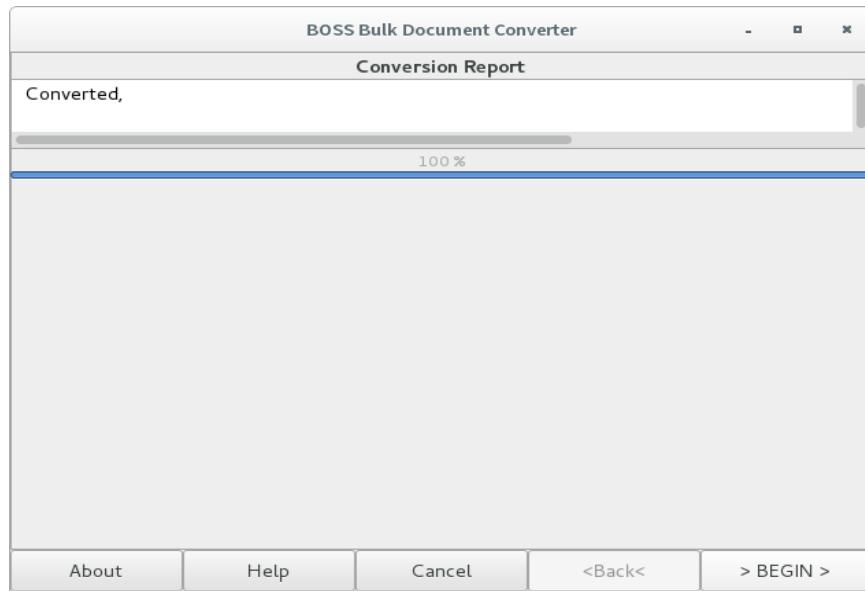
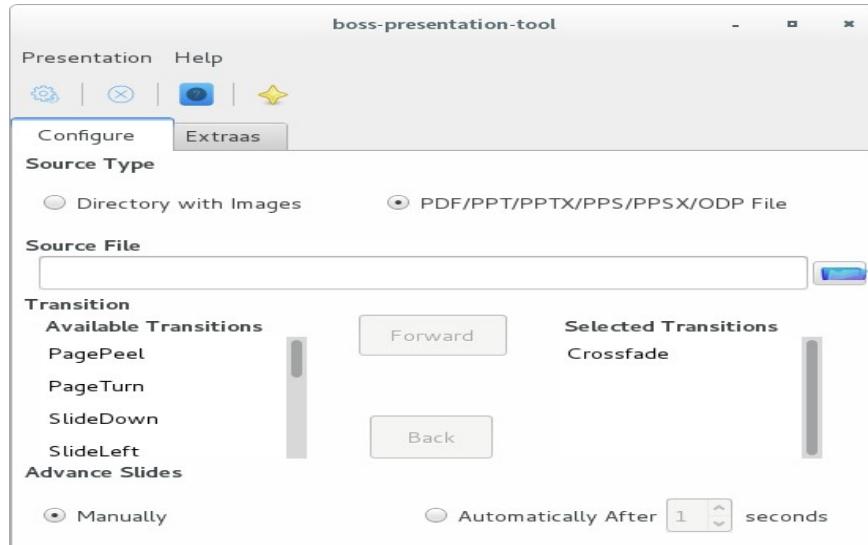


Figure 6. Conversion Completed

12.2 BOSS Presentation Tool

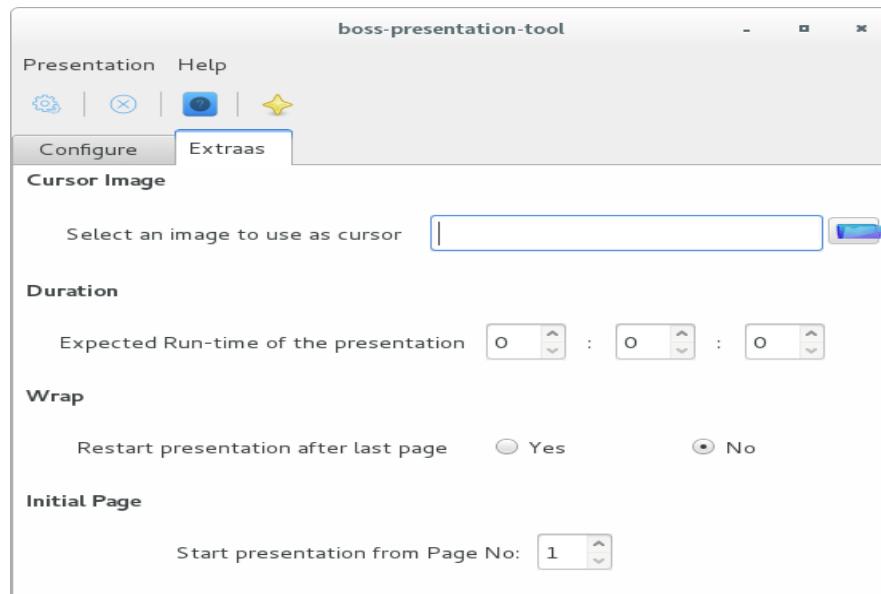
BOSS Presentation tool is the KeyJnote application. KeyJnote is a simple presentation program that displays slide shows of image files (JPEG, PNG, TIFF and BMP) or PDF documents.

To open BOSS Presentation Tool choose, **Applications->Office->BOSS-Presentation-Tool** or type **boss-presentation-tool** in terminal and press *Enter*.



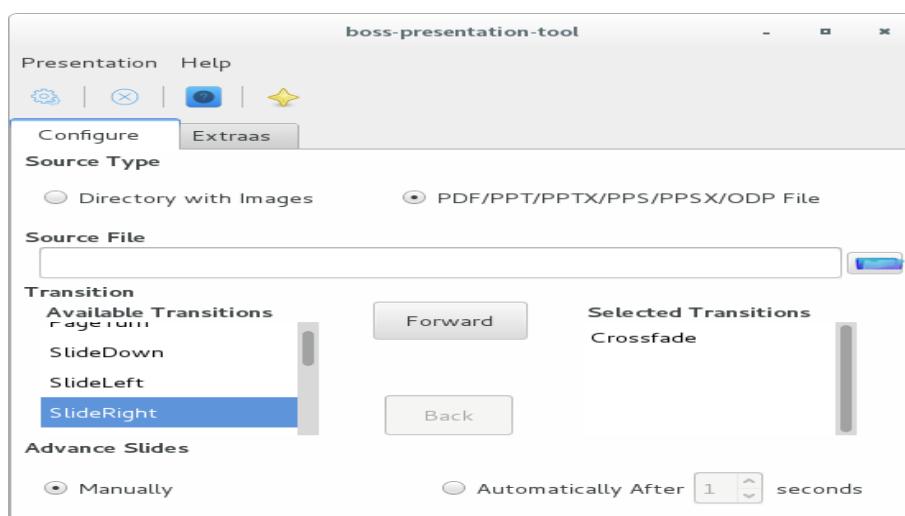
To display images using the presentation tool click “Directory with Images” option. Click the “Browse” button and select a directory(folder) containing one or more images.

To display a PDF or PPT or PPS or ODP file using the presentation tool click “PDF/PPT/PPS/ODP File” option. Click the “Browse” button and select the file with extension .pdf or .ppt or .pps or .odp

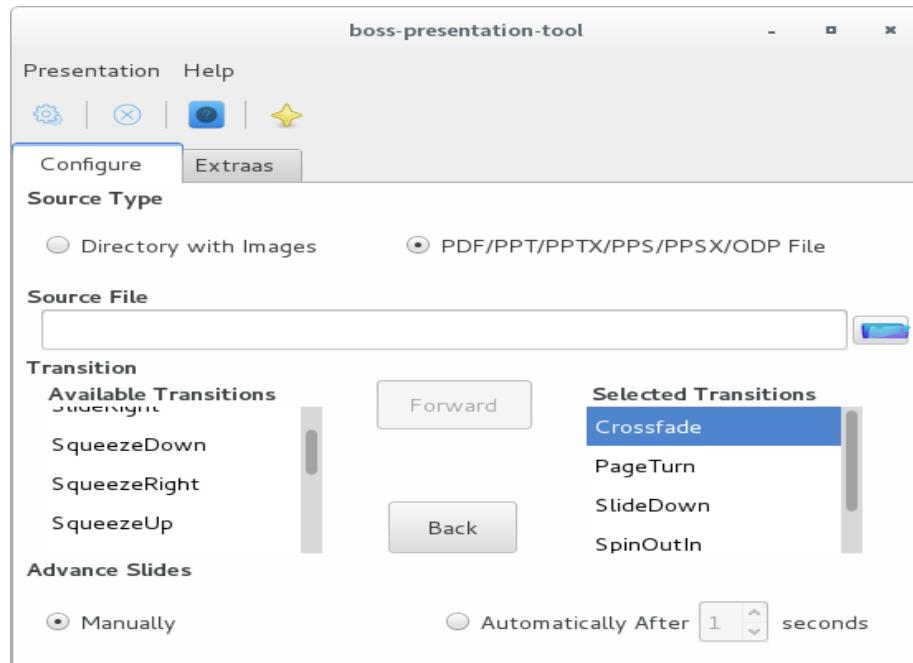


Transitions

Any number of transitions can be applied. The "Available Transitions" box contain a list of all the available transitions. To apply a transition click the transition and click the "Forward" button. The selected transitions will be moved to the "Selected Transitions" box.

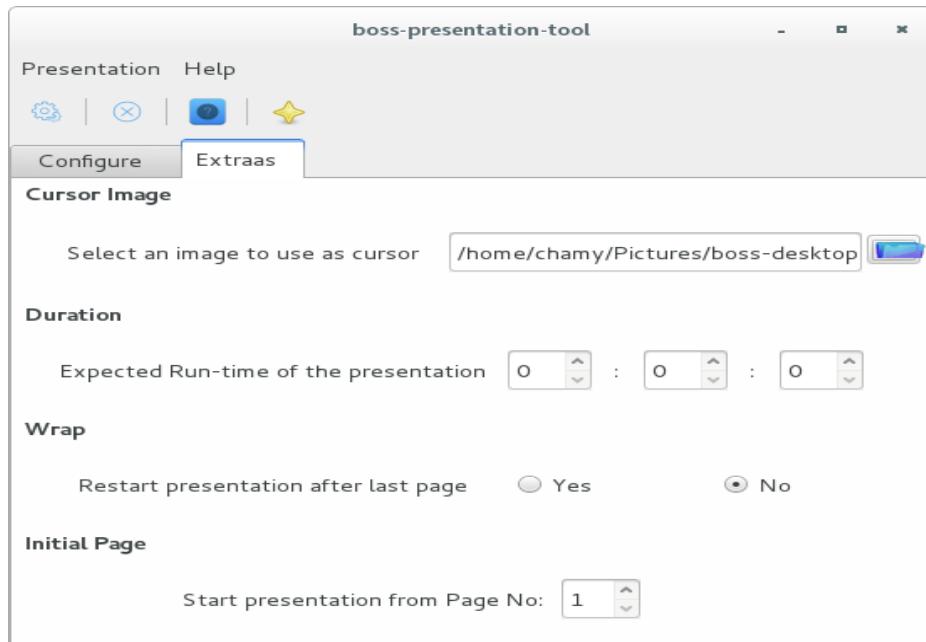


To remove any of the selected transition click the corresponding transition and click "Back" button.



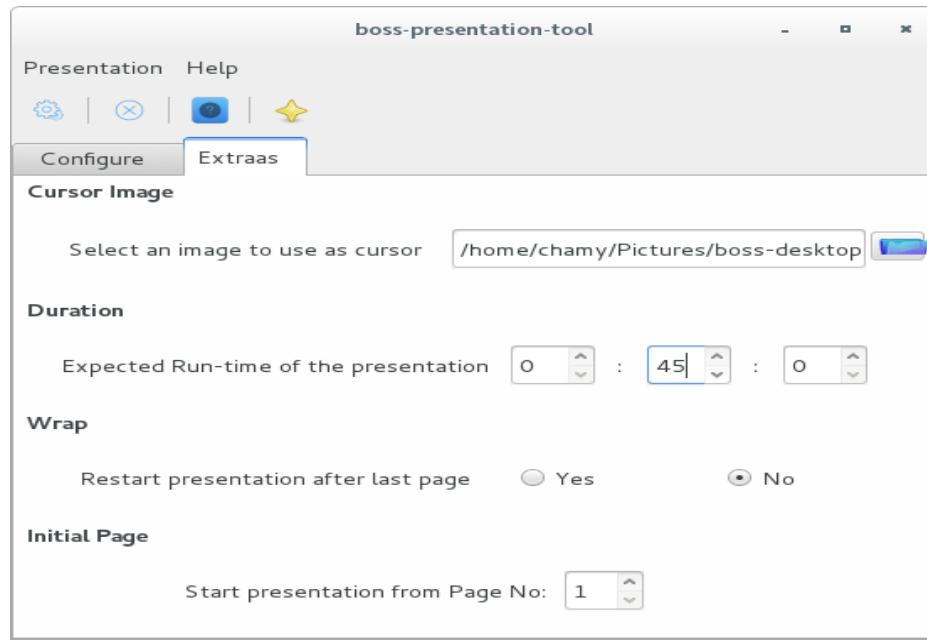
Cursor Image

Instead of using the normal mouse pointer, an image can be used as Cursor.

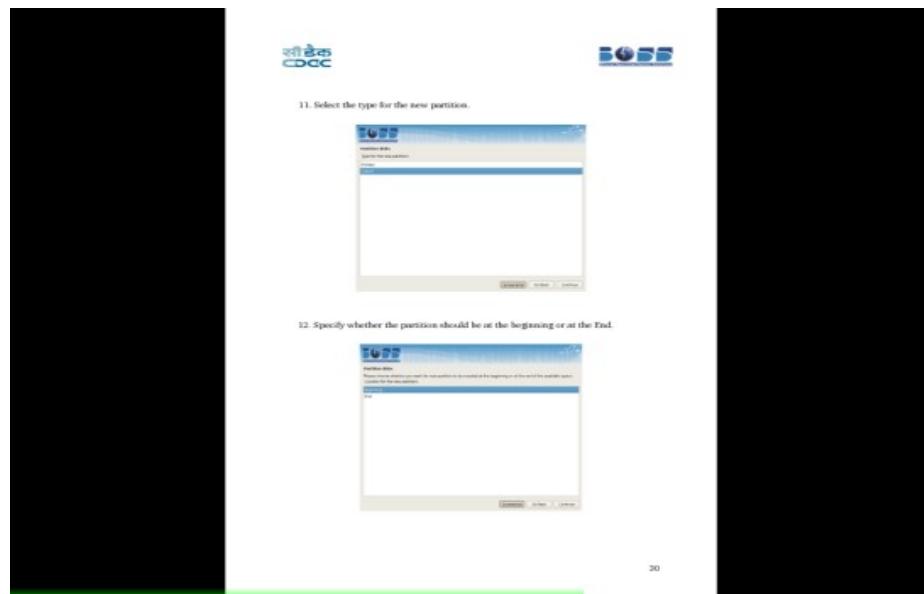


Run Time of the presentation

While giving presentation some time limits will be there. The presenter will not be aware of how much time is left out while giving the presentation. For this the user can specify the time limit.



A progress bar will appear at the bottom of the slide showing the remaining time. If some time is left out the bar will be in "green" color. If the time is over the color of the bar will change to "red".

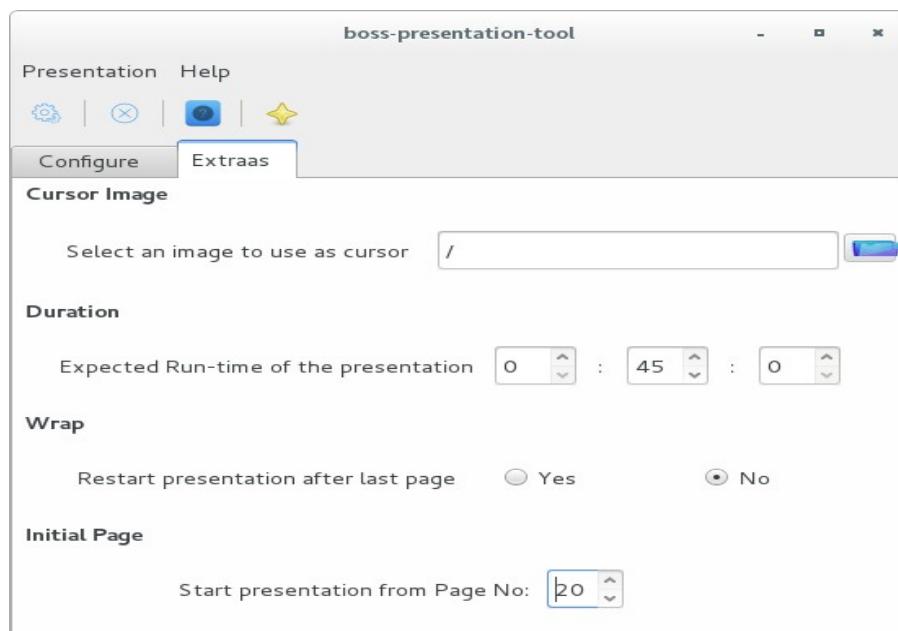


Wrap

After the last page of the presentation if the first page should appear again set the wrap option as "Yes".

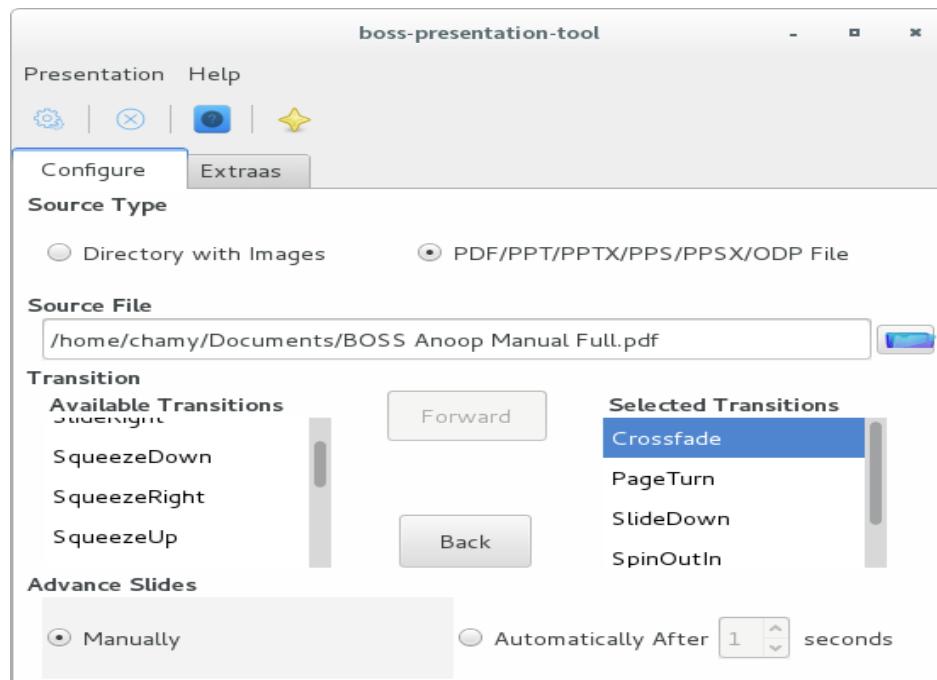
Initial Page

By default the presentation will start from the first page. To start the presentation from a page other than the first page use the "Initial Page" option.



Executing the presentation

To execute, choose **Presentation -> Execute** from the menu or Press "Execute" icon from toolbar. Keyboard Shortcut – *F8*.



Keyboard and Mouse Operations

Q key or Esc key

Quit BOSS Presentation Tool immediately.

LMB (Left Mouse Button), Page Down key, Cursor Down key, Cursor Right key or Spacebar

Go to the next page.

RMB (Right Mouse Button), Page Up key, Cursor Up key, Cursor Left key or Backspace key

Go to the previous page.

Home Key / End Key

Go directly to the first or last page of the presentation.

F key

Toggle fullscreen mode.

Tab key or MMB (Middle Mouse Button)

Zoom back to the overview page. While in overview mode, a page can be selected with the mouse and activated with the left mouse button. The right or middle mouse button or the Tab key leave overview mode without changing the current page.

LMB over a PDF hyperlink

Jump to the page referenced by the hyperlink. Only hyperlinks that point into the same document are supported; inter-document links or web links will be ignored. This feature is only available if pdftk is installed. Furthermore, it will not work properly when pages are rotated.

Click & Drag with LMB (Left Mouse Button)

Create a new highlight box. While at least one highlight box is defined on the current page, the page itself will be shown in a darker and blurry rendition. Only the highlight boxes will be displayed in their original lightness and sharpness. If a page with highlight boxes is left, the boxes will be saved and restored the next time this page is shown again.

RMB (Right Mouse Button) over a highlight box

If the right mouse button is clicked while the mouse cursor is above a highlight box, the box will be removed. If the last box on a page is removed, the page will turn bright and sharp again.

S key

Save the info script associated with the current presentation. The main purpose for this is to permanently save highlight boxes so they will be restored the next time this presentation is started.

T key

Activate or deactivate the time display at the upper-right corner of the screen. If the timer is activated while the very first page of the presentation is shown, it activates »time tracking« mode. In this mode, a report of all pages visited with their display duration, enter and leave times will be written to standard output. This will be very useful when preparing presentations.

R key

Reset the presentation timer.

Return key or Enter key

Toggle spotlight mode. In this mode, the page is darkened in the same way as if highlight boxes are present, but instead of the boxes, a circular “spotlight” will be shown around the mouse cursor position, following every motion of the mouse cursor.

+ key / – key or mouse wheel

Adjust the spotlight radius.

Z key

Toggle zoom mode. When this key is first pressed, the current page will zoom in. In zoom mode, all other functions will work as normal. Any operations that leave the current page, such as moving to the next or previous page or entering the overview screen, will leave zoom mode, too.

O key

This will toggle the »visible on overview page« flag of the current page. The result will not be visible immediately, but it can be saved to the info script (using the **S** key) and will be in effect the next time the presentation is started.

I key

This will toggle the skip flag of the current page. A page marked as skipped will not be reachable with the normal forward/backward navigation keys.

Click & Drag with RMB (Right Mouse Button) in zoom mode

Moves the visible part of the page in zoom mode.

Cursor keys in overview mode

Navigate through pages.

Any other alphanumeric (*A-z, 0-9*) or function key (*F1-F12*) can be used to assign shortcuts to pages that require quick access. If one of the keys is pressed together with Shift, the currently displayed page is associated with this key. To recall the page later, it is sufficient to press the shortcut key again. Shortcuts can be permanently stored with the **S** key.

13 Playing Music and Movies

13.1 Banshee Music Player

Banshee is a music management and playback application for GNOME.

Banshee has a beautiful user interface and is well architecture.

Features:

- Import CDs
- Manage your library
- Play your music
- Create and maintain playlists
- Sync music with your iPod
- Play music directly from your iPod
- Create audio and mp3 CDs

To start Banshee Music Player, choose **Applications -> Sounds & Video -> Banshee Media Player** or type **banshee** in terminal and press *Enter*.

13.1.1 Importing Music

To import music, click "Music", then "Import Media..." and choose the location on your hard drive to import your music. You can import digital music files including OGG, FLAC, MP3 or WAV. Banshee will then sort your music based on artist, track name, track number or album. Clicking on one of the columns will make Banshee sort in that order.

To import music from an audio CD, insert the CD in your CD-ROM drive. The left hand side of Banshee on the side menu will display a CD icon.

Click on the CD icon on the left bar to display the songs on the CD. Click on "Import CD" in the upper right hand corner and Banshee will import the songs into your collection in the file format you've chosen in your Preferences. To choose the file format (OGG, MP3, FLAC or WAV), click **Edit -> Preferences**. In the "CD Importing" section choose the format from the "Output Format" drop down menu.

13.1.2 Podcasts

Banshee supports subscribing and listening to Podcasts. Choose "Podcasts" on the left hand side menu. To subscribe to a Podcast, click on "Subscribe to Podcast". Enter the URL of the Podcast you would like to subscribe to. Banshee will then begin to download the latest Podcast, and show all available downloads for the URL in the bottom pane. Click on the check box to download additional Podcasts.

13.1.3 Playing Audio CDs

To play your CD, insert it into your drive. It should automatically appear within Banshee in your sources list, beneath your Music Library and Video Library sources. You can click the new source (named Audio CD, or the name of the album) and double click a track in it to begin playback.

13.1.4 Importing/Ripping Audio CDs

1. Insert a CD
2. Banshee automatically detects it and adds it to the side menu; click it
3. Uncheck any tracks you don't want imported
4. Press the *Import CD* button, located near the upper-right corner of Banshee
5. Banshee will begin importing the CD. As it finishes each track, it will appear in your *Music Library*

Adjusting Your Preferences

You can change your CD importing preferences. Go to the *Edit* menu, and choose the *Preferences* menu item. Within the Preferences dialog, choose the *Audio CD* tab.

Import format

The defaults should be fine, but if you prefer to have your music imported as a certain file type (.mp3, .wma, or something else) or with certain quality settings (128kbps, 256kbps, etc) you can set that here. If you don't see the file format you want, you need to ensure you have the appropriate GStreamer plugin/codec installed.

Automatic import

With this item checked, Banshee will automatically begin importing as soon as you insert an audio CD - unless it can't find the track list (album name, track titles) for it, or it detects you already have at least part of the album imported.

Eject when done importing

If you want Banshee to automatically eject your audio CDs after importing them, check this.

13.2 Movie Player

Totem is the official movie player of the GNOME desktop environment. It is also BOSS's default video player. Totem plays any xine or gstreamer-supported file. It enables you to play movies or songs.

To start Totem, choose **Applications -> Sounds & Video -> videos** or type **totem** in terminal and press *Enter*.

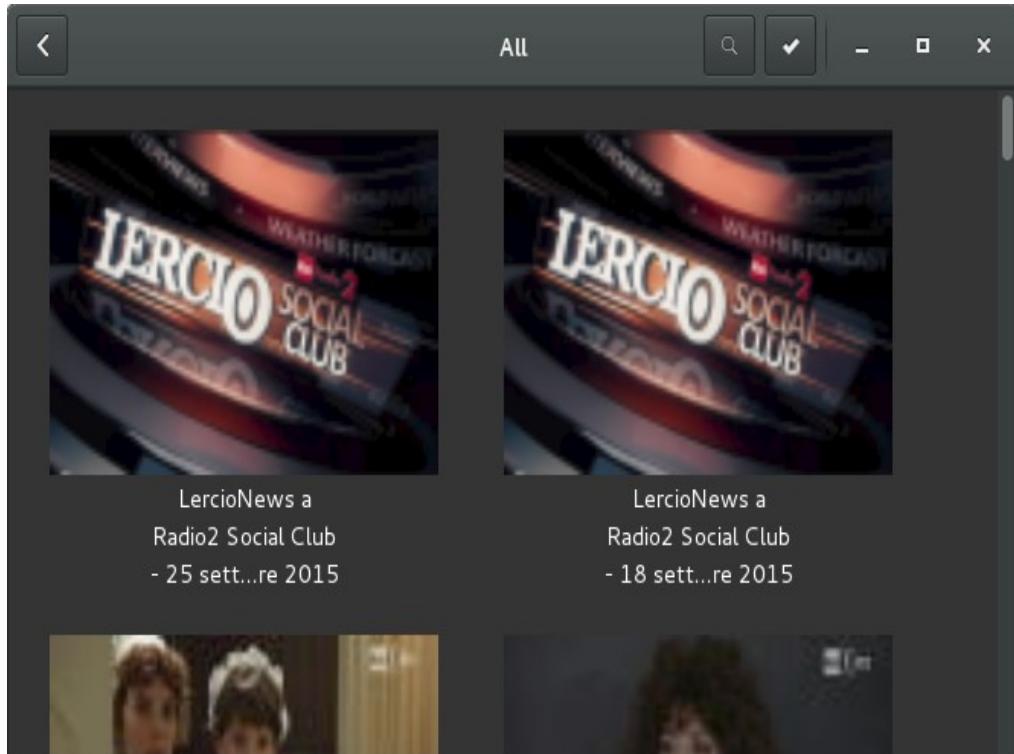
Totem Movie Player provides the following features:

- Support a variety of video and audio files.
- Provide a variety of zoom levels and aspect ratios, and a full screen view.

- Seek and Volume controls.
- A playlist.
- A complete keyboard navigation.

Totem Movie Player also comes with additional functionalities such as:

- Video thumbnailer for GNOME.
- Nautilus properties tab.



13.2.1 Opening a File

To open a video or an audio file, choose **Movie -> Open** (***Ctrl+O***). “Select Movies or Playlists” dialog is displayed. Select the file you want to open, and click “OK”.

You can drag a file from another application such as a file manager to the Totem Movie Player window. The Totem Movie Player application will open the file and play the movie or song. Totem Movie Player displays the title of the movie or song beneath the display area and in the title bar of the window.

If suitable codecs for the format your are trying to play is not installed the following window appears:

Once “Search” is clicked a window appears showing the list of available codecs. Select the codecs you want to install and click “Install”.

Once the installation of codecs is completed you can play the song or movie.

13.2.2 Opening a Location

To open a file by URI location, choose **Movie -> Open Location** (*Ctrl+L*). The Open from URI dialog is displayed. Use the drop-down combination box to specify the URI location of file you would like to open, then click on the Open button.

13.2.3 Play a Movie (DVD or CD)

Insert the disc in the optical device of your computer, then choose **Movie -> Play Disc**.

13.2.4 Eject a DVD or CD

To eject a DVD or CD, choose **Movie -> Eject** (*Ctrl+E*).

13.2.5 Pause a Movie or Song

To pause a movie or song that is playing, click on the Pause button at the bottom left of the window, or choose **Movie -> Play/Pause**. When you pause a movie or song, the status bar displays “Paused” and the time elapsed on the current movie or song stops.

To resume playing a movie or song, click on the Play button, or choose **Movie -> Play/Pause**.

13.2.6 View Properties of a Movie or Song

To view properties of a movie or song, choose **View -> Sidebar** to make the sidebar appear, and choose “Properties” in the drop-down list.

The dialog contains the following information:

- General - Title, artist, year and duration of movie or song.
- Video - Video dimensions, codec and frame rate.
- Audio - Audio bit rate and codec.

Changing the Video Size

To change the zoom factor of display area, you can use the following methods:

- To zoom to full screen mode, choose **View -> Fullscreen** or press *F11*

- To exit fullscreen mode, click on the “Leave Fullscreen” button or press *Esc* or *F*.
- To zoom to half size (50%) of the original movie or visualization, choose **View -> Fit Window to Movie -> Resize 1:2**.
- To zoom to size (100%) of the original movie or visualization, choose **View -> Fit Window to Movie -> Resize 1:1**.
- To zoom to double size (200%) of the original movie or visualization, choose **View -> Fit Window to Movie -> Resize 2:1**.

13.2.7 Adjusting the Volume

- To increase the volume, choose **Sound -> Volume Up** (*Up Arrow*) or move the volume slider to the right.
- To decrease the volume, choose **Sound -> Volume Down** (*Down Arrow*) or move the volume slider to the left.

To adjust the sound volume, you can also use the volume button in the panel or keyboard. Press the volume button and choose the volume level with the slider.

13.2.8 Make Window Always On Top

To make the Totem Movie Player window always on top of other application windows, choose **View -> Always on Top**

13.2.9 Repeat Mode

To enable or disable repeat mode, choose **Edit -> Repeat Mode**.

13.2.10 Shuffle Mode

To enable or disable shuffle mode, choose **Edit -> Shuffle Mode**

13.2.11 PlayList

- To show playlist, choose **View -> Sidebar**, or click the Sidebar button, and choose “Playlist” on the top of the sidebar. The Playlist dialog is displayed.
- To hide Playlist, choose **View -> Sidebar** or click on the Sidebar button again.

You can use the Playlist dialog to do the following:

- Adding a track or movie - To add a track or movie to the playlist, click on the “Add...” button. The Select files dialog is displayed. Select the file that you want to add to playlist, then click “OK”.
- Removing a track or movie - To remove track or movie from the playlist, select the filenames

from the filename list box, then click on the “Remove” button.

- Saving playlist to file - To save playlist to file, click on the “Save” button. The Save playlist dialog is displayed, specify the filename that you want to save the playlist.
- Moving track or movie up the playlist - To move track or movie up the playlist, select the filenames from the filename list box, then click on the “Up” button.
- Moving track or movie down the playlist - To move track or movie down the playlist, select the filenames from the filename list box, then click on the “Down” button.

13.3 Restricted Formats

BOSS GNU/Linux strives to make every piece of software available under the licensing terms laid out in the BOSS GNU/Linux License Policy. Patent and copyright restrictions complicate the ability of a free operating system to distribute software that will support proprietary or non-free formats.

BOSS GNU/Linux's commitment to only include completely free software by default means that proprietary media formats are not configured 'out of the box'. This page will show you how to enable support for the most popular non-free media formats.

These are non-Free formats and tools, well-known from the Win32 world. The most important ones are Java, Windows Media, Real Media, Real Player, DVD-video, Macromedia Flash, AAC and iTunes Music Store and some other Video and Audio Codecs. All of them are not included within the BOSS standard installation. You have to install them manually.

How to play restricted formats with BOSS GNU/Linux(media codecs)

You can install the multimedia codecs with the following steps

- 1) Update your sources.list with BOSS repo, so open the terminal and execute the following command

```
#vi /etc/apt/sources.list
```

- 2) Add the following line in that file

```
deb http://packages.bosslinux.in/boss BOSS main contrib non-free
```

- 3) Save the file and quit, *Esc+:+wq*

- 4) Open the terminal and execute the following commands

```
# sudo apt-get update
# sudo apt-get install gstreamer0.10-plugins-bad
# sudo apt-get install libarts1-mpeglib
# sudo apt-get install libarts1-xine
```

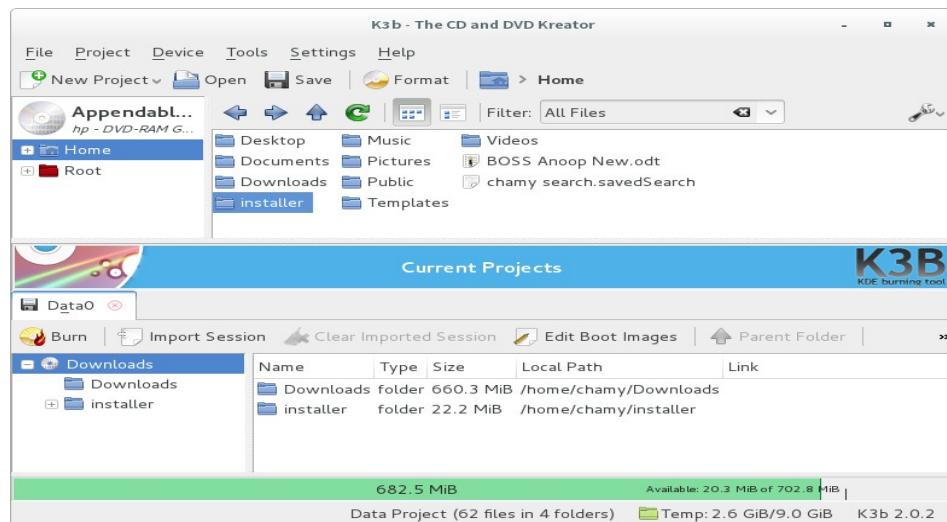
14 Burning CDs and DVDs

K3B is a CD and DVD burning application for Linux systems. It provides a comfortable user interface to perform most CD/DVD burning tasks like creating an Audio CD from a set of audio files or copying a CD.

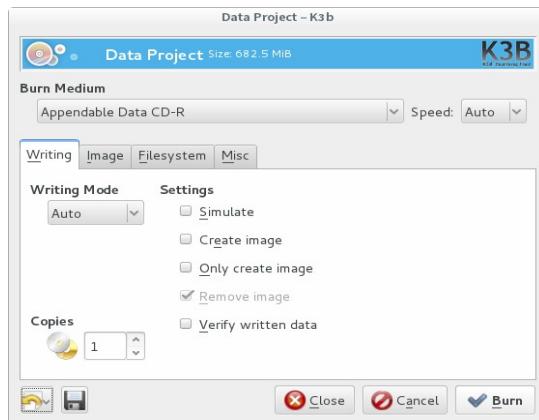
To start the application, select **Applications -> Sound & Video -> k3b** or type **k3b** in terminal and press *Enter*.

14.1 Creating a Data CD or DVD

To create a Data CD choose “Data CD” from the Compilation Browser. To create a Data DVD choose “Data DVD” from the Compilation Browser. Then drag the files you want to burn on the CD or DVD from the File system Browser to the Compilation Browser.

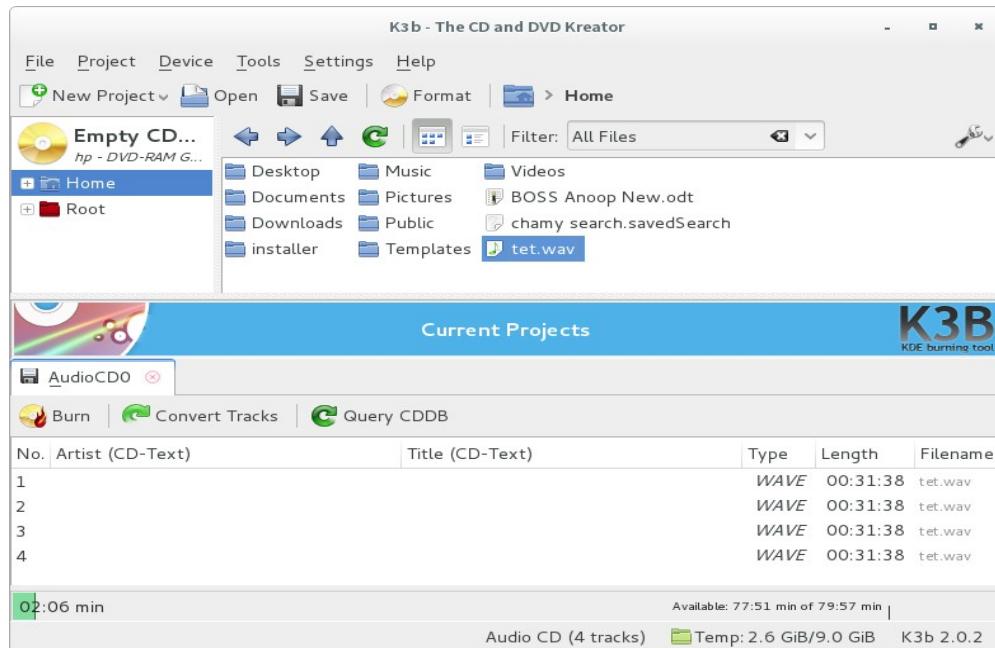


Then press “Burn” in the lower right corner. After clicking it, you will see the following dialog:



- Use the “Writer” drop down menu to select your writer.
- Select the speed that you want to burn the CD.
- Select the “Eject disk” option so k3b would eject the disc after finishing the writing.

14.2 Creating an Audio CD



To create an Audio CD choose “Audio CD” from the Compilation Browser. Then drag the music files you want to burn on the CD from the File system Browser to the Compilation Browser.

Then press the “Burn” button in the lower right corner. After clicking it, you will see the following dialog:



- Use the “Writer” drop down menu to select your writer.
- Select the speed that you want to burn the CD.
- Select the “Eject disk” option so k3b would eject the disc after finishing the writing.

14.3 Copying a Data CD or DVD

To copy, choose **Tools -> Copy Data CD** or **Tools -> Copy DVD** depending upon your media. The application will show the following dialog:



- Use the “Reader” drop down menu to select the reader from which the data will be copied.
- Use the “Writer” drop down menu to select your writer.
- Select the speed that you want to burn the CD.
- Select the “Eject disk” option so k3b would eject the disc after finishing the writing.

14.4 Blank a CD-RW

To erase a CD-RW, choose **Tools -> Format/Erase rewritable Disk**. The application will



show the following dialog:

- Use the “Writer” drop down menu to select your writer.
- Select the speed that you want to burn the CD.
- Select the “Eject disk” option so k3b would eject the CD-RW disc after erasing it.
- Select the “Fast blank” option to activate this method of blanking.

14.5 Burn an ISO Image

To burn an ISO image, choose **Tools -> Burn Image**. Navigate through the directories and after selecting the ISO file which you want to burn, press “OK”.

15 Partition Editor

Partition Editor is the Gnome Partition Editor application. Partition Editor is an industrial-strength package for creating, destroying, resizing, moving, checking and copying partitions, and the file systems on them. This is useful for creating space for new operating systems, reorganizing disk usage, copying data residing on hard disks and mirroring one partition with another (disk imaging).

To work with partition table, click, **System ->System Tools -> GParted** or type **gparted** in terminal and press *Enter*.

If you click the “Gparted” menu(at the top left), a pop down menu is presented. You can select “Refresh Devices” to refresh the display of the drives on your system. As well, a keyboard shortcut(*Ctrl+R*) can also be used to refresh the screen information. With the second choice, you can choose the hard drive whose partitions you want to modify. This is useful if you have more than one hard drive. The third option under “Gparted” menu is used to obtain more information. It opens a new window from which you can see the supported file-types and some partition editing options.

The “Edit” menu shows two greyed out functions which are quite useful: Undo and Apply. These options may also be seen in the toolbar. To activate them, you must choose a partition you wish

to modify.

The “View” menu allows you to access/view other areas :

Device Information: The device information panel displays details about the hard disk, such as Model, Size etc. This panel is most useful in a multi hard disk system, where the information is used to confirm that the hard disk being examined is the one that is wanted.

Pending Operations: At the footing window is a list of pending operations. The information is useful as it provides an indication of the number of pending operations.

“Device” menu allows you to set a Disk Label....

If the current disk label is inappropriate, you may change it using **Device -> Set Disklabel...** option.

The “Partition” menu is most import. It allows you to do many operations, we can create a new partition, some of which are dangerous. Select “Delete” if you want to delete a partition. To perform the delete, you must first select the partition.

‘Resize/Move’ is a useful function. we can resize or move a partition using this option.

You may also format any partition to a file system which is supported in the menu.

The last choice gives information about the selected partition.

Note: Before doing any of the following operations, make sure that the partitions are unmounted.

Few operations:

Creating a new partition:

Select an unallocated area and click the “New” button in the toolbar to create a new partition. A new window appears and lets you chose the size, file system, type of partition etc.5,

Deleting a partition:

The second icon on the toolbar is for deleting the selected partition. If you want to delete a partition, select that partition and click the “Delete” icon and then click “Apply”.

Resizing a partition:

At the top right-end of the screen there is a drop-down box where you can choose the hard disk you want to work on, if you have several hard drives on the PC/machine. Remember that this will only become operational after the scan is completed.

Click the partition that is to be resized and then select “Resize/Move” from the “Partition” menu or click “Resize/Move” icon from the toolbar.

Now you can increase or decrease the size of the partition. If you have free space in that partition, then only you can decrease the size of the partition. If you have free space in the hard disk then only you can increase the size of the partition.

Once you have done your job, click on “Apply”. No operations are given to the hard disk until you click “Apply”.

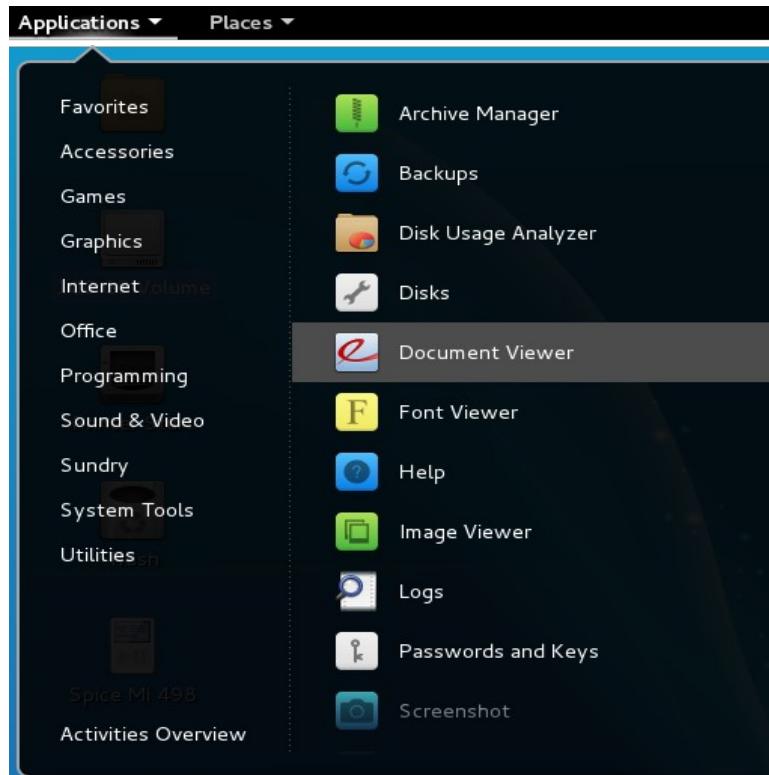
Copying a partition: You must first select the partition you want to copy. Right-click on the partition and click “Copy”. After copying the partition, you must choose an unallocated area to activate “Paste” button. You may wish to resize the partition you want to paste: same size or bigger? (A smaller partition is impossible!). After you have pasted, you can click "Apply".

16 Utilities

16.1 Document Viewer

The Evince Document Viewer application enables you to view documents of various formats like Portable Document Format (PDF) files and Post Script files.

To start document viewer, choose **Applications -> Utilities -> Document Viewer** or type **evince** in terminal and press *Enter*.



The Evince Document Viewer window contains the following elements:

Opening a document

To open a document choose **File -> Open....** Choose the name of the file you want to open and click “Open”. The name of the document will be displayed in the title bar of the viewer. The contents of the document will be displayed in the display area.

Navigating through the document

1. To view the next page do any one of the following:

- Choose **Go -> Next Page**
- Click “Next” button in the toolbar.

2. To view the previous page do any one of the following:

- Choose **Go -> Previous Page**
- Click “Previous” button in the toolbar.

3. To view the first page in the document Choose **Go -> First Page**

4. To view the last page in the document Choose **Go -> Last Page**

5. To view a particular page, enter the page number in the “Select Page” text box on the toolbar, then press *Enter*.

Changing the page size

1. To increase the page size, choose **View -> Zoom In**. Short cut key is *Ctrl++*
2. To decrease the page size, choose **View -> Zoom Out**. Short cut key is *Ctrl+-*
3. To resize a page to have the same width as the Evince Document Viewer display area, choose **View -> Fit Page Width**.
4. To resize a page to fit within the Evince Document Viewer display area, choose **View -> Best Fit**.
5. To resize the Evince Document Viewer window to have the same width and height as the screen, choose **View -> Full Screen**. To resize the Evince Document Viewer window to the original size, click on the “Leave Full Screen” button.

Viewing the Pages or Document Structure

To view any page, perform the following steps:

1. Choose **View -> Side Pane** or press *F9*.
2. Use the drop-down list in the side-pane header to select whether to display document structure or pages in the side pane.
3. Use the side-pane scrollbars to display the required item or page in the side pane. Click on an entry to navigate to that location in the document. Click on a page to navigate to that page in the document.

Viewing the Properties of a Document

To view the properties of a document, choose **File -> Properties**. Short cut key is *Alt+Enter*.

The Properties dialog displays all information available.

Printing the document

To print the document, choose **File -> Print**

Copying the document

To copy a file, perform the following steps:

1. Choose **File -> Save a Copy...**
2. Select the location where you want to save the file and give a new name for the copy.
3. Click “Save”.

Working With Password-Protected Documents

An author can use the following password levels to protect a document:

- User password that allows others only to read the document.
- Master password that allows others to perform additional actions, such as print the document.

When you try to open a password-protected document, Evince Document Viewer displays a security dialog. Type either the user password or the master password in the “Enter document password” text box, then click “Open Document”.

Closing the document

To close the document, choose **File -> Close**

16.2 Image Viewer

gThumb is an image viewer and browser written for the GNOME environment. It lets you browse your hard disk, showing you thumbnails of image files and view single images of many different formats.

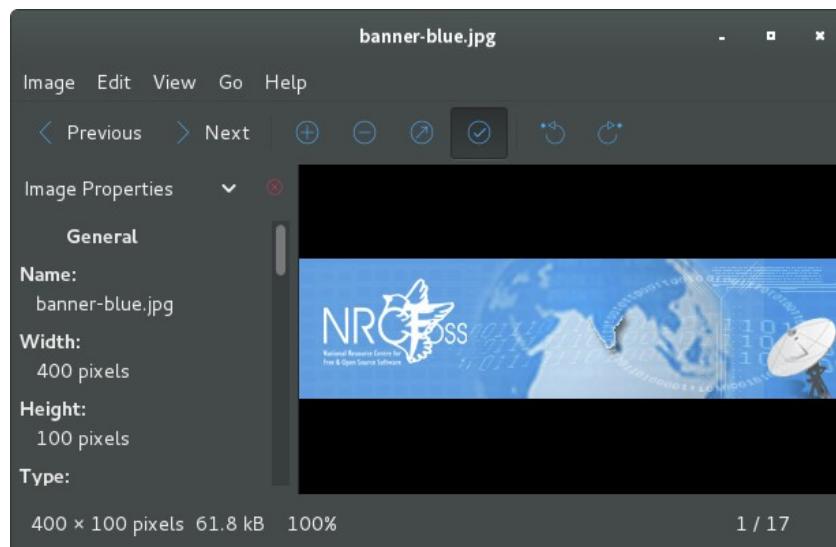
The most common image formats are JPEG and GIF. The JPEG format is good for medium and big sized images because it has a high compression rate keeping a good image quality. The GIF format is used in Web pages for displaying little animations or little static images.

Another important image format is PNG, this format is very common on Unix platforms and is considered a replacement of the GIF format.

gThumb supports all this formats and many others, it also displays GIF animations.

gThumb not only lets you view image files but has many other features such as add comments to images, organize images in catalogs, print images, view slide shows, set your desktop background, and more.

To start Image Viewer choose **Applications -> Graphics -> gThumb Image Viewer** or type **gthumb** in terminal and press *Enter*.



16.2.1 Sort Images

To sort images in a different order choose **View -> Sort Images**, use *Ctrl+R* to reload the current folder, type *T* to view or hide the thumbnails in the images list.

16.2.2 To Add a Folder to the Bookmarks

Frequently used folders can be added to the bookmark list for rapid access. Just go to the folder you want to add to the bookmarks and press *Ctrl+D* or use the menu item **Bookmarks -> Add Bookmark**.

To remove or rearrange bookmarks in a different order choose **Bookmarks -> Edit Bookmarks...**

16.2.3 Viewing Images

In order to view an image just click on its thumbnail and the image will be visualized in the viewer pane. If the image doesn't fit the viewer pane you can give more space to the viewer hiding the browser, this can be accomplished by double-clicking on the thumbnails or pressing the Return key, pressing it again the browser will be displayed again.

Another way of viewing a big image is to view it in full screen mode. Type *F* to activate/deactivate the full screen mode.

Mouse operations :

Holding down the left button and moving the mouse	move the image
Left-click	Show next image
Middle-click	Show previous image
Right-click	Pop up the image menu

Another way of moving images is by the navigation button located in the right bottom corner of the viewer window when the images does not fit in the window. Clicking and holding this button will show you a preview of the image. Moving the mouse you will move the image to the desired position.

16.2.4 Viewing the Image Properties

To view the image properties, perform the following steps:

1. Select the image.
2. Choose **File -> Properties**. gThumb displays a Properties dialog.

16.2.5 To View the Image EXIF Data

To view the exif data attached to an image, use the Properties dialog or perform the following

steps:

1. Select the image.
2. View the image pressing Return or double clicking on it.
3. Press *I*. gThumb displays the exif data.

16.2.6 Comments

Comments are pieces of information attached to images.

Adding Comments

To add a comment to an image select the image and choose **Edit -> Comment...** or type **C**.

Comments are structured in various parts :

- Comment: a free text describing the picture.
- Place: the place the picture represents.
- Date: the date the picture was taken.

Image comments are displayed in the image list in italic text above the image filename. If the comment is too long the symbol "[..]" is appended to the displayed part of the comment to signal you that the comment is not entirely visible. To view the whole comment use the image properties dialog that can be displayed using the **File -> Properties** menu item or pressing **I**.

Add Comments to Many Images

To add a comment to many images, select the images and choose **Edit -> Comment...** or type **C**.

The Comment dialog will fill in the fields that have the same value for all the images leaving all other fields empty.

You can activate the "Save only changed fields" option to change one or more fields of many comments leaving all other fields unchanged.

Removing Comments

To remove comments, perform the following steps:

1. Go to the folder or catalog where the images are.
2. Select the images and choose **Edit -> Remove Comment**. gThumb removes the comments.

To View an Image Comment

To view an image comment, use the Properties dialog or perform the following steps:

1. Select the image.
2. View the image pressing Return or double clicking on it.

3. Press *l*. gThumb displays the image comment.

16.2.7 Catalogs

Catalogs lets you organize images without moving them from a folder to another, think of them as playlists for images.

Catalogs can be organized in libraries. A library is like a folder that can contain catalogs and other libraries.

To Create a Catalog

To create a catalog, perform the following steps:

1. Set the catalogs view by selecting **View -> Catalogs** or pressing *Alt+2*.
2. Choose **File -> New Catalog...**
3. Enter the catalog name and click on “OK”. gThumb creates the catalog.

To Add Images to a Catalog

To add a series of images to a catalog, perform the following steps:

1. Select the images you want to add to the catalog and choose **Edit -> Add to Catalog**. A window titled “Choose a Catalog” appears.
2. Select an existing catalog or create a new one by clicking “New Catalog” button.
3. Choose “OK”. gThumb adds the selected images to the catalog.

To View the List of Catalogs

To view the list of catalogs, perform the following step:

1. Press *Alt+2* or choose **View -> Catalogs**.

To View a Catalog

To view the content of a catalog, perform the following steps:

1. Set the catalogs view by selecting **View -> Catalogs** or pressing *Alt+2*.
2. Select the catalog by clicking on the catalog name.
3. If you want to go to the image folder, select the image and use the **Go -> Go to the Image Folder**. gThumb will display the image folder and will scroll the image list in order to make the image visible.

To Remove Images from a Catalog

To remove images from a catalog, perform the following steps:

1. Set the catalogs view by selecting **View -> Catalogs** or pressing *Alt+2*.
2. Select the catalog.
3. Select the images you want to delete and choose **Edit -> Remove from Catalog**. gThumb removes the images from the catalog.

To Rename, Remove or Move a Catalog

To rename, remove or move a catalog, perform the following steps:

1. Set the catalogs view by selecting **View -> Catalogs** or pressing *Alt+2*.
2. Select the catalog.
3. Choose **File -> Catalog** or use the context menu that can be displayed pressing the right mouse button on the name of the catalog in the catalog list.

16.2.8 Slide Show

You can start a slide show of the images in the current folder by pressing *F12* or selecting the **View -> Slide Show** menu item.

To stop the slide show press *S* or *Esc*.

Switching on/off the full screen mode does not stop the slide show. If the Switch to full screen option is on then the slide show is started in fullscreen mode and exiting from the fullscreen mode will stop the slide show.

The slide show is interrupted when you change folder or re-load the current one.

With the slide show tool and the fullscreen mode you can do presentations. There are two types of presentations: automatic presentations and manual presentations.

Automatic Presentation

To do an automatic presentation, perform the following steps:

1. Go to the folder or catalog containing the images you want to present.
2. Select the images you want to view in the slide show, or select none to view all the images in the current folder or catalog.
3. Press *F12* or choose **View -> Slide Show**. gThumb starts an automatic presentation of the images. To stop the presentation press *S* or *Q* or *Esc*.

Manual Presentation

To do a manual presentation, perform the following steps:

1. Go to the folder or catalog containing the images you want to present.
2. Select the image from which you want to start the presentation.
3. Press *F*. gThumb displays the image in fullscreen mode.
4. Press *Space* or *N*. gThumb displays the next image.
5. Press *BackSpace* or *B*. gThumb displays the previous image.

To stop the presentation press *Q* or *Esc*.

17 Changing the name of Applications in BOSS

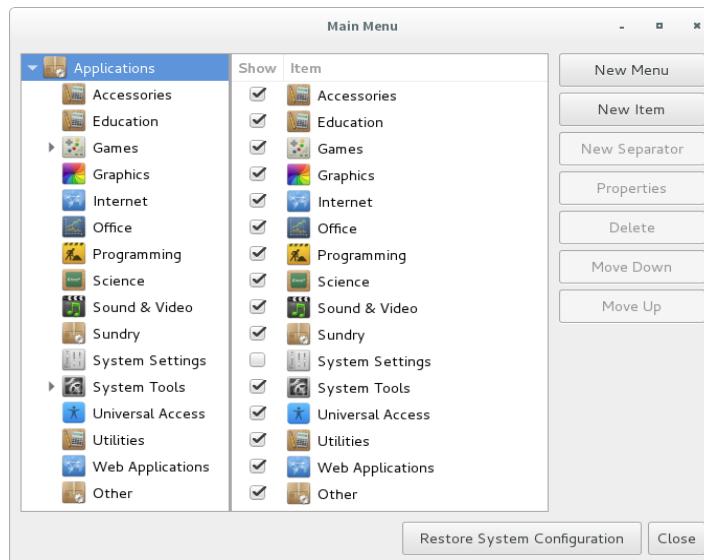
If you like to change the name of the applications, BOSS gives you an option to change those names.

Press the *Windows Key* then type in the search box “*Main Menu*” then *Enter*

or Click **Applications** → **System Tools** → **Main Menu** then type in the search box “*Main Menu*” then *Enter*

or Click **Applications** → **Activities Overview** then type in the search box “*Main Menu*” then *Enter*

A window appears as shown in the figure.

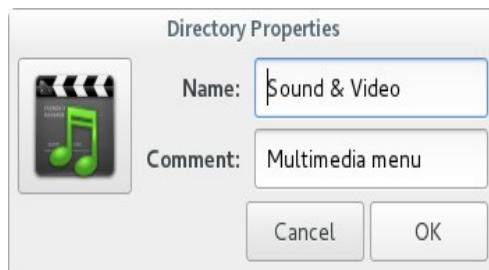


17.1 Changing the name of main menu

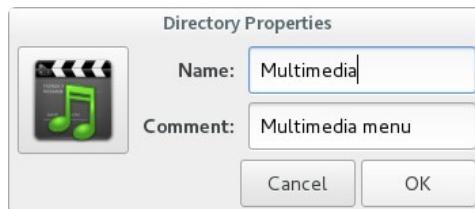
Follow these steps to change the name of main menu:

1. Double-click the application name to change the name of that application. For eg: to

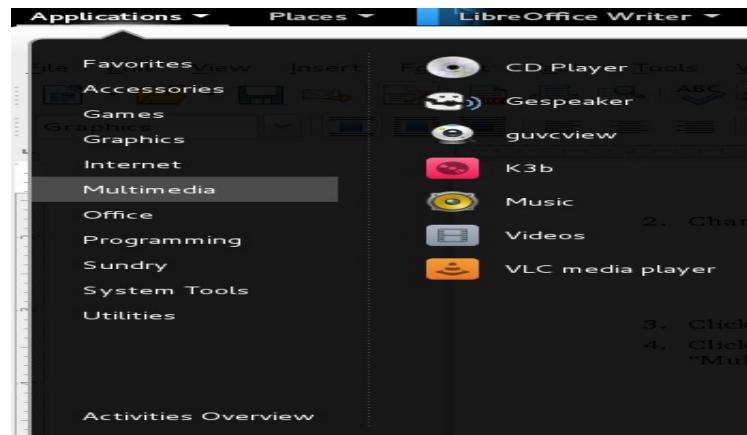
change the name of Sound & Video to any other name(eg:Multimedia) in Items double-click on “Sound & Video”. A window appears as shown in the figure.



2. Change the name “Sound & Video” to “Multimedia”.



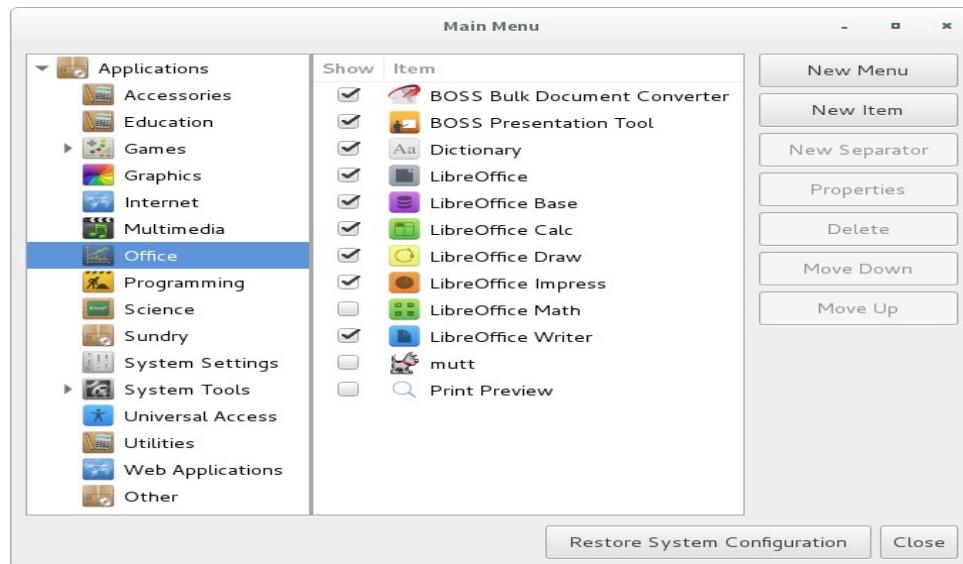
3. Click “Close”. Also in the window titled “Main Menu” click the “Close” button.
4. Click Applications. You can see that the name “Sounds & Video” has been changed to “Multimedia”.



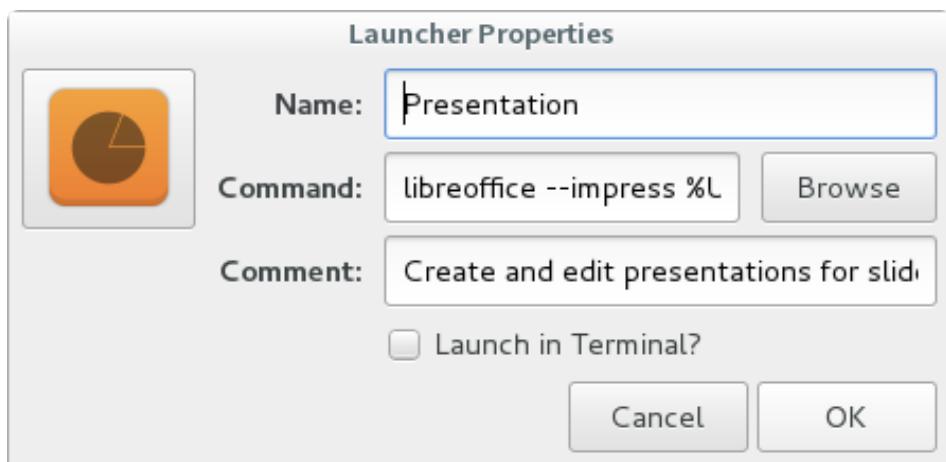
17.2 Changing the name of sub menu

Follow these steps to change the name of sub menu:

1. For eg: to change the name of LibreOffice Impress to another name(eg:Presentation) click “Office” in Menus.



2. From Items double-click “ LibreOffice Impress”. A window titled “Launch Properties” appears.



Change the name “ LibreOffice Impress” to “Presentation”.

3. Click “Close”. Also in the window titled “Main Menu” click the “Close” button.
4. Click **Applications -> Office**. The name “ LibreOffice Impress” has been changed to “Presentation”.



18 How to install ANYTHING in BOSS !!

Thinking about how to install anything in BOSS GNU/Linux. .EXE files not working? Thinking how to run the .EXE? Don't worry, installing softwares, packages, themes, skins and other things are pretty easy in BOSS GNU/Linux. BOSS GNU/Linux provides you the **Synaptic Manager** which allows you to install anything in easy steps with good and easy understandable GUI. Initially have a look at the screen shots in this document, which will direct you in using synaptic in your system.

18.1 Synaptic Package Manager

Synaptic is a graphical package management program for apt. It provides the same features as the **apt-get** command line utility with a GUI front-end based on GTK+.

Features

- Install, remove, upgrade and downgrade single and multiple packages.
- Upgrade your whole system.
- Manage package repositories (sources.list).
- Find packages by name, description and several other attributes.
- Select packages by status, section, name or a custom filter.
- Sort packages by name, status, size or version.
- Browse all available online documentation related to a package.
- Download the latest changelog of a package.
- Lock packages to the current version.
- Force the installation of a specific package version.
- Undo/Redo of selections.
- Built-in terminal emulator for the package manager.
- Configure packages through the debconf system.

The synaptic, refers to the /etc/apt/sources.list file for the repository links and installs the softwares from those repositories. So, before installing anything check whether you have the correct entry in the sources.list file or not (by default these entries are present in the file). The BOSS repository links are:

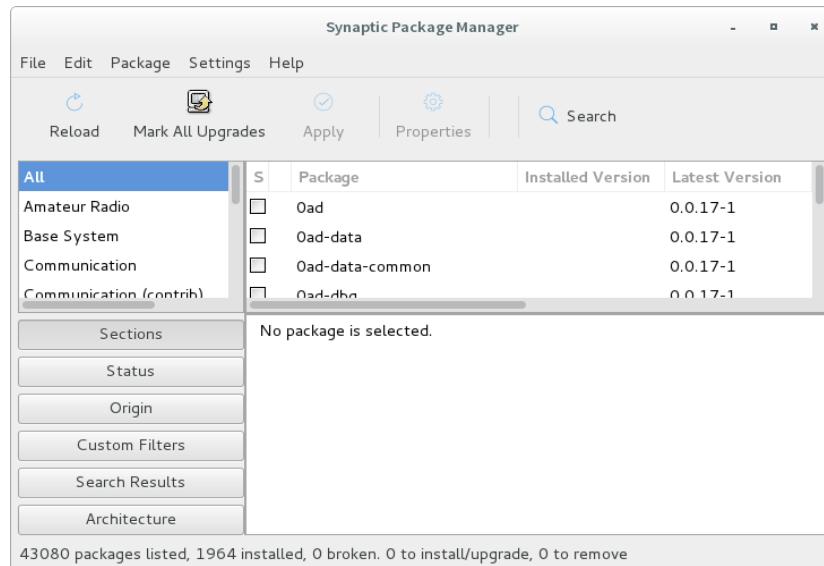
deb <http://packages.bosslinux.in/boss> BOSS main contrib non-free

deb-src <http://packages.bosslinux.in/boss> BOSS main contrib non-free [to download source]

You can edit this sources.list file manually and then open synaptic else, after you open the synaptic, you can enter the above paths through **Settings → Repositories**.

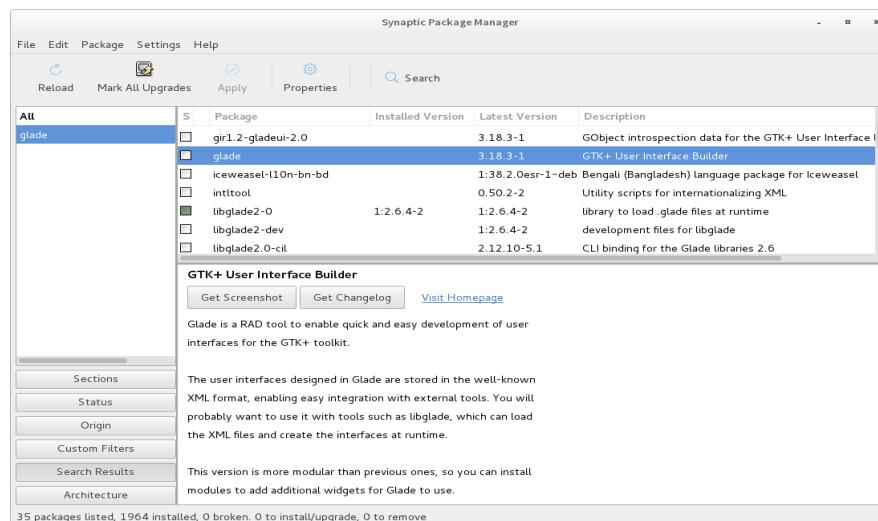
To launch synaptic Package manager, go to **Applications → System Tools → Synaptic Package Manager** or type **synaptic** in terminal and press *Enter*.

It opens the Synaptic Window:



By this time you might have already decided which package or software to install.

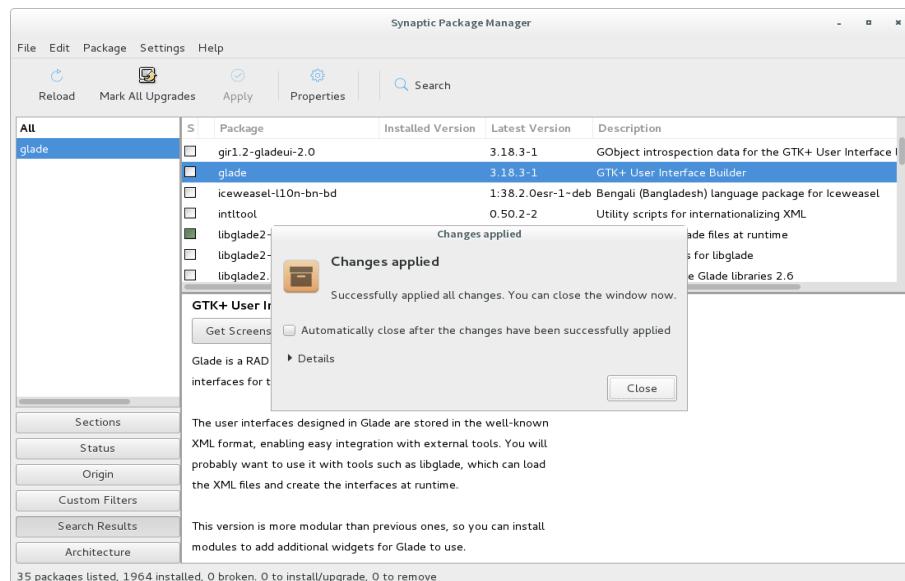
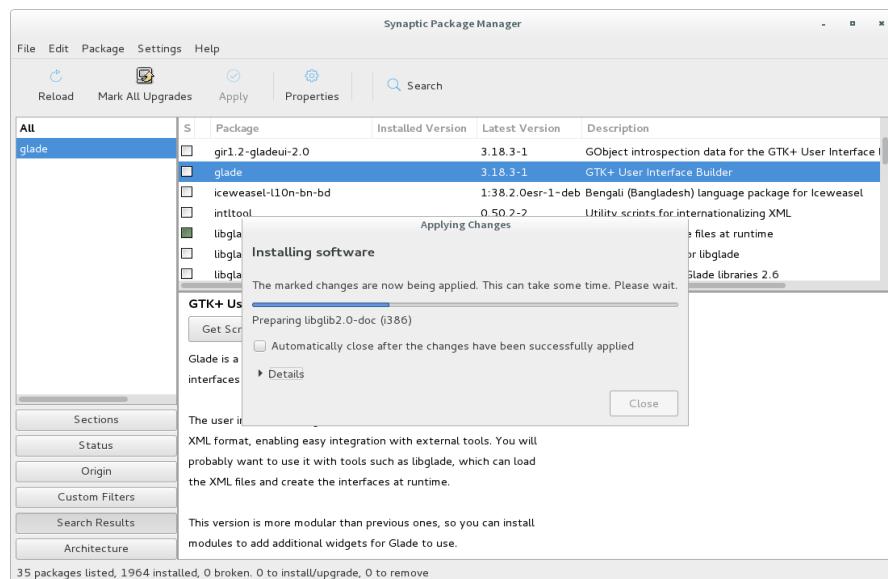
- Press *Ctrl+f* which opens the find window, where you can type the package name that you want to install.
- Or
- Click on any of the package in the window and start typing the package name, which will let you see the packages with that name online (while typing). This opens the find window in the bottom right corner.



After you find your package in the synaptic, right click on the package name, and select “Mark

for Installation". This will mark the package for installation, in green color. If there are any dependencies to install, it will show the dependent packages list in another window and their status like, whether it is safe to install or not, whether the dependent package removes any other package or installs any other packages, whether all the dependencies are available in the repository or not, etc. So, proceed further by checking the dependencies properly.

After you mark the package for installation, click on the "Apply" button in the top of the synaptic window. This starts the installation procedure.



Now your package is installed successfully. To uninstall any installed package, the same

procedure but instead of selecting the “Mark for Installation” select “Mark for Removal”. This will open a new window which will show you the list of packages (dependent) to be removed. Make sure that its not removing any base packages or needed packages.

Note: If your are having a DHCP connection then no need to bother. But if you are using the static IP, then you need to enter the details about your proxy server in **Settings -> Preferences -> Network**.

18.2 Where is my Binary File ?

BOSS GNU/Linux uses Debian Package Management system. You might have been clear about this now. So for any new application you need to search for the debian binaries are .deb packages. You can initially check in the BOSS repository for the package.

- 1) Use Synaptic Package Manager to install the package in the above mentioned method.
- 2) Manually install from the command prompt if you know the exact package name.
- 3) So, if the package is in the boss-repository, then download the package manually into your system and use `dpkg -i <package.deb>`. This works fine only if there are no dependencies to that file. If you find any dependencies then you have to download all the files and install manually.

[Better option is to use Synaptic Package Manager to install any software or package]

Install packages from Terminal

- Open the terminal **Applications -> Accessories -> Terminal**. Execute
`# vi /etc/apt/sources.list`
- Add the following if they are not added previously
<http://packages.bosslinux.in/boss> BOSS main contrib non-free
Save the file by typing `Esc+:+wq`
- Now in terminal type the following commands
`#apt-get update`
`#apt-get install <package name>`
- If you are not finding the package in the repository then inform us at bosslinux@cdac.in.

19 About BOSS Live

The BOSS GNU/Linux Live project aims to create BOSS GNU/Linux Live CDs, DVDs, and USBs for all the releases of BOSS GNU/Linux (and newer).

BOSS GNU/Linux Live is based on Debian GNU/Linux

This chapter is about BOSS GNU/Linux, a Free and Open Source Live Linux DVD. BOSS is a GNU/Linux distribution that boots and runs completely from DVD. It includes recent Linux software and desktop environments, with programs such as LibreOffice, Abiword, Gimp, Mozilla, Pidgin, XChat, Totem, and hundreds of other quality open source programs. It also includes document converter, Presentation tool, bluetooth devices support and Input method for so many Indian Languages.

How to use BOSS GNU/Linux Live DVD

- Boot with BOSS GNU/Linux DVD and select **Start BOSS Live** and press *Enter*.
- BOSS GNU/Linux Live DVD boots and login with default user "boss".
- In order to access admin privileges use "sudo" before every command.

For example:: sudo mkdir temp

- Users and Passwords:

users	Passwords
-----	-----
boss	boss
root	root

- Use external storage device(Pen/USB devices) or mounted hard disk partitions for saving data.
- Remaining configurations and usage will be same as BOSS GNU/Linux Install section.

20 Troubleshooting BOSS GNU/Linux

If you face any kind of problems with BOSS GNU/Linux, please inform us so that we will help you in solving it. But there are some basic issues that the lay users can also troubleshoot their systems on their own. This section gives you brief introduction of some of the problems and the steps to solve those issues.

20.1 Forgotten User Password

Passwords are stored in encrypted files on your BOSS GNU/Linux system: users cannot read the file and see their own or other passwords. If you forget your user password, you must create a new one.

If you realize that you have forgotten your password while logged in, you can create a new one for yourself. Open a shell prompt and enter the command `passwd`. The `passwd` command asks for the new password, which you will have to enter twice. The next time you log in, use the new password.

If you are not logged in when you realize you have forgotten your password, log in as the root user. Open a shell prompt and enter the command `$passwd <username>` where `<username>` is your normal user name. The `passwd` command requires you to enter the new password twice. Log out of your system. You can now log back in with your normal user name and your new password.

20.2 Error Messages during installation of deb packages

While installing a deb package for any new application, you need to update the repository paths appropriately in the `/etc/apt/sources.list` file as explained in the previous chapter. When you execute the `$apt-get update` command at your shell prompt, if you see that the repositories are not connected, then there may be a problem of proxy settings. If you are using the DHCP connection then it may not create problem unless you are able to access internet well. But if you are using the internet through proxy server then you need to export the `http_proxy` parameter to your proxy server ip and port number. If you don't have any idea about your proxy server then contact your network administrator.

Example : `$export http_proxy=http://192.168.31.100:3128`

Now you will see that an update on your repositories will work well.

Installing certain packages:

For installing a particular package, you need to know the exact package name of the application. Use `apt-get install <package name>` to install a package if you know the exact package name. If you are not sure with the full name of the package then you can search the related packages in the repository by using the command `apt-cache search <package name>` where the `<package name>` is your assumed package name, and this name can also have the meta characters included for easy search, like `php*` gives all the versions of php like `php-imap,php4-imap,php5-imap` etc. Once you find the exact package name, install it using the command `apt-get install <package name>`.

21 Conclusion

The BOSS GNU/Linux project has given rise to an Indian distribution of GNU/Linux targeted at the primary and secondary school students. Inspite of the constraints on human resources, the team was able to build this Linux distribution in a relatively short time.

The project is ongoing and the next release of the software is currently being worked on. Further the repository for BOSS GNU/Linux will make it easier to build customized distros based on it as well as by application developers.

Choice of FOSS

Majority of government computer users require software for doing a number of common tasks

like office applications (Word processor, spread sheet), accessing the Internet and multimedia in a secured environment. However, to bring it on every desk the software should be low cost and preferably no licensing fees at all. FOSS and GNU/Linux in particular meet all these requirements as it is free for use and can be freely copied, modified and distributed. It can also be easily localized to meet local needs and language. GNU/Linux is also relatively immune to common computer viruses, worms and spy ware.

21.1 About CDAC

Established in March 1988, as a Scientific Society of the Ministry of Communications and Information Technology, Government of India, C-DAC is primarily an R&D institution involved in the design, development and deployment of electronics and advanced Information Technology (IT) products and solutions.

C-DAC has established itself as premier R&D institution of National and International repute working in advanced areas of Electronics and Information Technology, developing and deploying IT products and solutions for diverse sectors of the economy.

21.2 About NRCFOSS

NRCFOSS has been promoted by the Department of Electronics and Information Technology(DIETY), MCIT, Government of India to address the issues related to FOSS in the Indian context and to explore how FOSS can play the twin roles of helping to bridge the digital divide as well as strengthening the Indian software industry.

One of the main objective of NRCFOSS is to come up with a local Indian GNU/Linux distribution viz. BOSS (Bharat Operating Systems Solutions). It was decided by a committee of experts to have an Indian distribution of Linux so that the language used for the desktop environment and some of the applications can be in the Indian language which will enable non-English literate users in the country to be exposed to ICT and to use the computer more effectively. In the long term, the BOSS GNU/Linux project will attempt to be the standard GNU/Linux distribution for desktop computers in India.

21.3 Contact Us

To know more about us, you can visit the NRCFOSS portal at <http://nrcfoss.org.in/> and further information about BOSS GNU/Linux and recent updates can be found at <http://www.bosslinux.in>. Also you can talk to the BOSS Team Members online through the IRC channel #BOSS-nrcfoss at Freenode.

Centre for Development of Advanced Computing(C-DAC),
8th Floor, D South & North,
Tidel Park Ltd.,
No.4, Rajiv Gandhi Salai,

Taramani,
Chennai-600113
Ph: 91-44 - 2254 2226/27
Website: <http://www.bosslinux.in>
Email : bosslinux@cdac.in

21.4 BOSS Support Centres

Addresses of BOSS Support Centres in India

BOSS Support Centre
Centre for Development of Advanced Computing ,
Plot E-2/1, Block GP, Sector V,
Bindhanagar, Salt Lake,
Kolkata 700 091
Ph: 033 23573950

BOSS Support Centre
Centre for Development of Advanced Computing,
68,Electronics City,
Bangalore 560100
PH: 080 28523300
Email : bosslinux@ncb.ernet.in, bosslinux@cdacbengalore.in

BOSS Support Centre
Centre for Development of Advanced Computing ,
A-34, Phase 8, Industrial Area,
Mohali, Chandigarh 160 071
Punjab
Ph: 0172 2237054

BOSS Lab,C-DAC



6 CGO Complex
Electronics Niketan
Lodhi Road
New Delhi -110003
Ph: 011 - 24301313
Email: bosshelp@mit.gov.in

BOSS Support Centre
Centre for Development of Advanced Computing,
Anusandhan Bhawan, C-56/1,
Sector 62,
Noida 201 307
Uttar Pradesh
PH: 0120 – 3063344

BOSS Support Centre
Centre for Development of Advanced Computing ,
Vellayambalam,
Thirunananthapuram 695033
Ph: 0471 – 2314412

BOSS Support Centre
Centre for Development of Advanced Computing ,
Campus of Pune University
Pune 411 007
Ph: 020 - 2564093

BOSS Support Centre
Centre for Development of Advanced Computing ,
2nd Floor, Delta Chambers,
Ameerpeth, Hyderabad 500 016

Ph: 040 - 231050115

BOSS Support Centre
Centre for Development of Advanced Computing ,
Gulmohar Cross Road No 9
Juhu, Mumbai 400 049
Ph: 022 - 26201488
Email: bosslinux.support@cdacmumbai.in

BOSS Support Centre
Centre for Development of Advanced Computing(C-DAC),
8th Floor, D South & North,
Tidel Park Ltd.,
No.4, Rajiv Gandhi Salai,
Taramani,
Chennai-600113
Ph: 91-44 - 2254 2226/27
Email : bosslinux@cdac.in