Salix Start-Up Guide

Getting familiar with your new operating System.

February 11, 2022

Contents

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About this manual

The purpose of this manual is to enable you to take full advantage of the many features of Salix. The latest version of this document is available from our website.

Your contribution is important!

We would like to improve the quality of the manual and to provide more documents translated in your mother tongue. Your help is always welcome.

For any comments and submission of articles to be included in the start-up guide, please contact us through the Salix mailing list.

Acknowledgement

My sincere thanks to all the people who have contributed to and worked on this start-up guide, especially ***mimosa***, who did a lot of work rewriting big parts of this guide and helped cleaning it up.

Many thanks also to ***tsuren***, ***jrd***, ***akuna***, and ***maximus*** for all their hard work in the previous versions of this guide.

The section on partitioning with *cfdisk* is adapted from the guide for Absolute Linux, with thanks to Paul Sherman.

~gapan

1 Salix at a Glance

Salix is a Linux Distribution based on Slackware that retains full backwards compatibility with its illustrious parent. However, while the KISS principle that Slackware adheres to refers to the viewpoint of system design, Salix also applies it to the viewpoint of the end user.

1.0.1 Salix Features

- One application per task rationale.
- Fully backwards compatible with Slackware.
- Optimised for desktop usage.
- With Salix Tools to assist system management.
- High-quality package repositories with dependency support.
- Simple & fully localized system administration tools.
- Salix artwork.
- Supports 32-bit and 64-bit architectures.
- Comes with a complete development environment.

1.0.2 Salix Editions

Salix comes in six different editions - **MATE**, **Xfce**, **Fluxbox**, **Openbox**, **KDE** and **Ratpoison**.

The choice is yours: the *intuitive* MATE desktop, a *streamlined* Xfce desktop environment, the *lightness* and *high customizability* offered by Fluxbox or Openbox as window manager, an *elegant* KDE accompanied by a very rich collection of KDE centric software, or "say goodbye to the rodent" Ratpoison, all with the Salix look and feel!

For now, Salix 14.1 offers MATE, Xfce, Fluxbox and Openbox, but other editions will follow in due course. Meanwhile, older versions continue to be supported.

For a list of applications available in each Edition, please refer to the later section (List of Applications).

1.0.3 Installation Modes

Salix offers three software installation options: **Full**, **Basic** and **Core**, to meet your demands!

Performing a **Full** mode installation is the recommended way of installing Salix for most users. It includes a fully configured desktop environment with a complete selection of applications to fit the needs of most people, including office related software, multimedia applications, internet applications, all the Salix system configuration tools and more. Don't let the word "Full" fool you, this is in no way a bloated installation since it adheres to the "one application per task" rationale. We feel that the collection of software that accompanies each respective desktop environment will cover most user's needs but, of course, any user can tailor the software selection through the Salix package management tools as required.

A **Basic** mode installation is mostly targeted at advanced users. It includes the respective desktop environment of each edition, and a very minimal selection of software on top, namely the Salix system configuration tools and a web browser. Wi-fi connection tools or drivers are not present and only wired network connections are supported out of the box. The user is expected to know how to install extra software and tailor the installation to his/her needs.

A **Core** mode installation does not provide any graphical environment. It only installs a command line system, including the Salix command line system and package management tools. It is intended for expert users who know how to use the command line tools to administer their systems. It is most commonly used to set up types of server such as web-servers and e-mail servers. The servers that host the Salix websites are hosted on, run Salix installed using the **Core** mode method. Expert users can of course use this mode to install the X window system and any graphical environment on top of it if desired.

1.0.4 Salix Repositories & Package Management

- *slapt-get* and its graphical interface *Gslapt* are the primary tools used for package management while *slapt-src* and *Sourcery* are included to allow the easy installation of an even wider selection of software!
- A wide range of packages from Slackware, Slackbuild and Salix repositories.
- The Salix repositories offer **dependency resolution support** and are the **largest** third party software package repositories for Slackware offered to date.
- The Salix repositories are offered for both the **32-bit** and **64-bit** architectures.

"Like a bonsai, Salix is small, light & the product of infinite care."

2 Starting Up Salix

2.1 Introduction

2.1.1 Downloading Salix

The latest Salix releases are freely and easily available as ISO image files from the Salix download page, via direct download link or torrent file.

Please use the torrents...

if it is convenient for you to do so and please seed if you can. These torrents are hosted by Salix's torrent server, made possible by generous donations from users.

An ISO image is an archive file of an optical disc. It can be easily eendered or burned to a DVD or CD by using media authoring or disc burning software. The resulting CD should contain the contents of the .iso file, but not the .iso file itself; if it does, you have made a mistake in the process. Alternatively, if your system supports booting from USB, a USB stick may be used.

Checking download integrity

It is recommended if possible, to verify the integrity of your downloaded file by comparing its md5sum file with the original one uploaded besides the corresponding ISO image file by Salix. This ensures that your downloaded image file matches exactly with the one provided on the Salix website and minimises the possibility of installation errors later on.

2.1.2 Booting from a Salix Installation medium

Your computer must be set to boot on the optical drive/USB port first before defaulting to the internal hard disk drive. If that is not the case, you need to first modify the BIOS setting, usually by pressing the Del key or the F2 key (or some other key combinations depending on your machine). Once in the BIOS, find the *boot menu* or similar and set the order of the boot devices properly, with your optical drive/USB port in the first position. Save your changes and reboot your computer. Insert the Salix CD/DVD or USB key, and start up your computer.

2.2 Installing Salix

2.2.1 Before starting

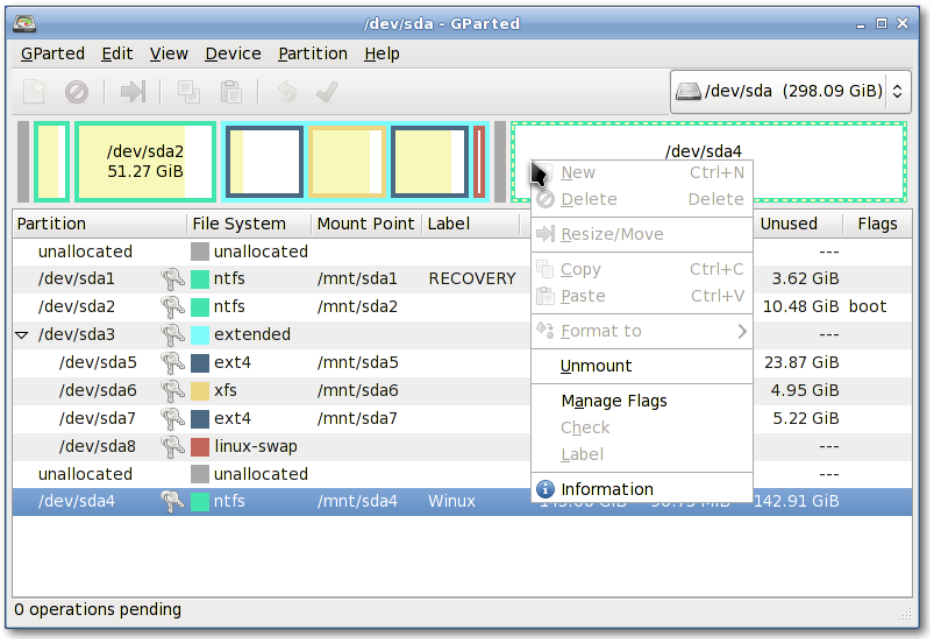
Installing Salix on your computer is simple. But before starting, it is wise to check the following points:

- Have you backed up all the important files you have?
- Check if your computer comes with Linux-friendly/supported hardware.
- Minimum recommended specification (Intel PIII 1 GHz, 512 Mb RAM, 8Gb HD space, or equivalent, though a lower spec machine may run without a problem).
- At least one separate. partition dedicated for Salix on your computer.

2.2.2 Partition Management

Before installing Salix, you need to have the necessary partition space available on your system, and if the computer does not have a separate partition for Linux, you must create one before installing Salix.

If you have an unformatted partition, unallocated disk space, an existing partition you do not use, or you are happy to completely erase and reformat your hard drive, you can create or rewrite a new partition table using *cfdisk* (or *cgdisk* for EFI systems), which is available through the Salix installer. A short tutorial on using cfdisk is available in a later section in this guide. *cfdisk* and *cgdisk* are capable of removing and creating partitions, but they lack the functionality to resize partitions. While using *cfdisk* or *cgdisk* is easy, less experienced users may prefer the safeguards and graphical interface of *Gparted*, which can also resize and move partitions.



Live CDs from pretty much any Linux distribution come with Gparted, which will enable you to change the partition organisation on a disk device while preserving the contents of the partitions. You may wish to use this application to create/re-organise your partition table.

A hard drive space can be divided into no more than four "primary" partitions, which can be problematic if you are hosting more than one operating system on the same hard drive. A hard drive can, however, be divided into three "primary" partitions and one "extended" partition. The extended partition can then be subdivided into "logical" partitions and hence overcome the limitation set by the "primary partition" (i.e. no more than four partitions). In practice, there is no difference between a logical and a primary partition except that "Windows" OS cannot be installed on a logical partition.

⚠ Backup your files!

It is advisable to back up any important files before modifying the partition table.

So what kind of partitions do you need?

- Salix needs, at the very minimum, one partition which holds the root directory and must be assigned as /.
- It is often recommended to have one swap partition though modern RAM

sizes now often mean it isn't needed. If you already have another Linux OS running on your machine, its swap partition can be shared, and you do not need to create another. A swap partition is in essence used as extra RAM to improve the performance of your machine when, for example, your machine doesn't have a lot of physical RAM or you're performing memory-intensive operations (such as video editing) that use up most or all of the physical RAM. It is normally recommended to have 1.5-2 times the size of your RAM as swap space, but for a modern desktop computer with several GB of RAM, a swap partition may not be strictly necessary.

- Many users like to have a separate partition to hold the /home directory, where you can store all your personal data such as documents, photos, customised settings for the desktop environment etc; but this is by no means necessary.
- Optionally you can create separate partitions to hold different directories such as the /var directory, where system log files are stored. But unless you are running a server machine, this is probably unnecessary. An advantage of having more than one partition to hold separate directories is that you can reformat one partition without affecting others. For example, you can re-install Salix on your machine (this goes to the partition holding the "/" directory) while leaving the partition holding the /home directory intact; however, be aware that /home can contain configuration specific to each distribution and release, so sharing it between distros or reusing it when installing a new version of Salix is liable to lead to problems.

Each partition can be formatted into one of several file systems, including xfs, ext4, ext3, ext2, btrfs, jfs and reiserfs. The default is xfs.

*On (U)EFI systems, it is mandatory to have a separate partition allocated for **/boot**. This partition should have a type of **ef00**, when created in cgdisk. This partition should be formatted using the **FAT32** filesystem.*

2.2.3 Installing from a Salix Installation CD

Installing Salix from a Salix Installation CD is somewhat similar to installing Slackware, but the entire process is considerably shorter and less complicated. Everything is done efficiently in a semi-graphical command line interface.

- Select your keymap.
- If you prefer to let Salix do everything including partition management, just select AUTOPARTITION. Note that this will delete everything on

the hard drive.
- Otherwise, the installer will run *cfdisk* to allow you to set up your desired partitions. If they are already as you wish, type 'Q' to quit. See below for a detailed guide to using cfdisk.
- Your swap partition, if any, will be automatically detected. Say `yes` if the detected partition corresponds to that.
- You will then be asked to specify the partition for the root / directory. Select the partition you have created for the /, and continue to format the partition. Unless you prefer otherwise, the xfs file system is recommended here.
- If you have other partitions to mount, you can do so. If you have a partition for a `/home` directory, select the partition and continue. Unless the partition is new or you would like to erase the content of this partition, select not to format.
- Other partitions such as Windows partitions will be detected automatically. If you would like to make those partitions automatically usable during your Salix session, include them all to mount.
- The installer will start installing Salix. You will be asked first where the source files are. If you are installing from the CD, select "from the CD". Everything should be detected automatically.
- You will be asked to choose an installation mode (**Full**, **Basic** or **Core**).
- Installation of packages will start.
- After the installation, LILO setup will start up. Unless you are **not** using LILO, choose the default options. You can refine the bootloader configuration (for example, in a multi-boot scenario) after booting into your new Salix installation.
- You will be asked some other questions regarding time-zone, username and password. When all the basic questions are answered, the machine will restart itself.
- That's all. The computer is good to go! Enjoy Salix!

💡 Salix now uses sudo!

By default, the first user created has access to sudo, any others do not; to allow them access as well, they need to be added to the wheel group.

2.2.4 Installing from a Salix Installation USB

Installing Salix from a USB key is also possible. You can use *dd* to transfer the contents of the Salix iso image to your USB stick, using a command line like this:

```
dd if=salix_image_file.iso of=/dev/sdb
```

Of course, you'll have to replace *salix\imagefile.isowiththeexactpathandnametotheisofil*

⚠ *dd is very dangerous!*

The dd command wipes all the data from the specified target device. In the example given above that device is /dev/sdb, but it could very well be a different one in your case. Always double check which partition and device you are reading from and writing to, e.g. using `sudo fdisk -l`. If you are not 100% certain, then do not proceed as this could permanently destroy the contents of an entire hard drive.

After writing the iso image to your USB stick and setting your BIOS to boot from it, the installer works exactly as described above when booting from a CDROM. The only difference is that when you are asked for the medium to use as a source for the packages installation, you should select the "Install from a Salix USB" option.

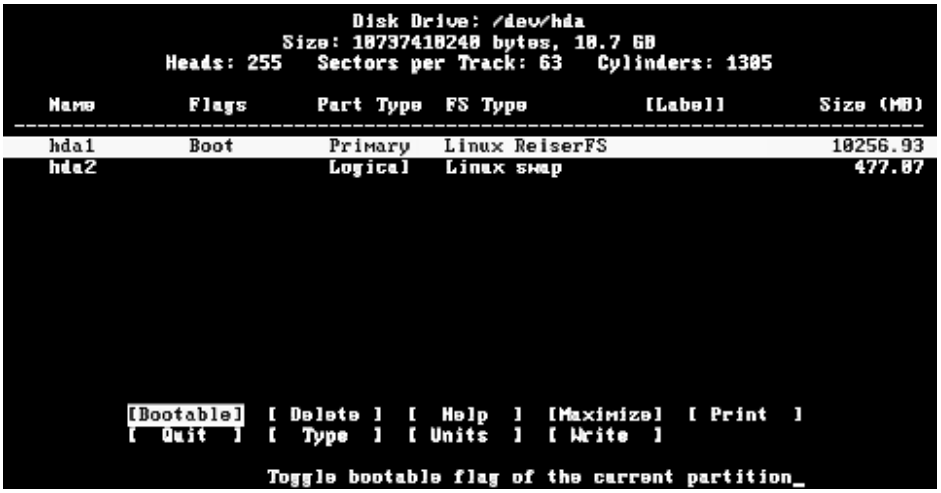
2.2.5 Partition management with cfdisk

These instructions assume that you will create a single partition to hold Salix, plus a swap partition, as an illustration; however, cfdisk can create any partitioning scheme required. Note that you can also delete partitions (which will irrevocably destroy their contents). New partitions can be created in free space. For the purposes of this example, it is assumed the entire disk is free. Swap, if you need it, should normally be twice your RAM, so if that is 250 MB, swap should be 500 MB. If you have more than 2 GB of RAM, you needn't take this rule too strictly and you can have smaller sized swap partitions.

You can move between the commands listed at the bottom of the screen with the arrow keys, or select the command by typing the first letter, such as 'Q' to ***Quit****.*

- *Make a* ***New*** *partition, taking up all but 1 GB of the disk (this will be used for swap space). Note that you can choose whether to create a Primary or Extended partition; the former is what is needed in this example, but an extended partition will allow for the creation of logical partitions within it, when a more complex setup is needed.*
- *Make this partition* ***Bootable*** *(with 'B'). Use the up and down arrow keys to select a particular partition, if there is more than one. The default partition type is 'Linux' so that partition is done.*
- *Next, make another new partition, taking up the rest of the drive.*
- *Change its* ***Type*** *to 82, Linux Swap.*

- *When you are happy with it,* ***Write*** *the partition table to disk.*
- ***Quit*** *to continue with Salix installation.*



GPT

If your hard drive is partitioned using the GPT scheme, instead of the older MBR scheme, instead of cfdisk, you get cgdisk. While there are some differences between them, you'll find out that they are mostly the same, so the instructions provided for cfdisk apply to cgdisk, for the most part.

cfdisk usage details

Hard disk names

SCSI harddisks are named with sdx, where x is a harddisk letter. The disk with the lowest SCSI ID on the first controller will become sda, the next after that, sdb, and so on.

Hard disk partitions

GNU/Linux systems often use a partition scheme inherited from MS-DOS. With this, a harddisk can have up to four primary partitions. If you want more, you have to make one of these an extended partition where you can make several logical partitions. The partitions are named with the disk they belong to, and a number. The first primary partition on the first disk is therefore sda1,

the second primary partition is sda2, and so on. The first and second logical partition on an extended partition on the first disk is sda5 and sda6, and so on.

Using cfdisk

The user interface

After cfdisk is started you'll get an interface where the current partition table is listed with the names and some data about each partition and some command buttons on the bottom of the screen. To change between partitions, use the up and down arrow keys. To change between commands, use the left and right arrow keys.

Deleting a partition

To delete an existing partition, highlight it with the up and down keys, select the Delete command with the left and right arrow keys and press Enter or just press `D`*.*

Making a new partition

To make a new partition, select the New command with the left and right arrow keys, and press Enter. You'll get the choice between a primary and a logical partition. If you want a logical partition, the program will automatically make an extended partition for you. Then you must choose the size of the partition (in MB). If you can't enter a value in MB, return to the main screen with the `Esc` *key and select MB with the Units command.*

Set the type of a partition

To set the type of a partition, highlight the desired partition and select the Type command. You'll get a list of different types. Press space, and you'll get even more. Find what type you need, and enter the number at the prompt. Linux is 83, Linux swap is 82.

Make a partition bootable

To be able to boot from a primary partition, you need to make it bootable. Highlight the partition and select the Bootable command.

Write the result to disk and quit

When you are content with the layout of the disk, select the Write command. The partition table will be written to disk. Remember that this will destroy all data on partitions you have deleted or changed. You should, therefore, be very sure that you want to do this before actually pressing the Return key.

To exit the program, select the Quit command. The installer will then detect any partitions you have created and offer you the option to assign mount points to them.

3 Your Salix

3.1 Package Management

Installing applications (which roughly equates to "installing packages") is a fundamental part of the Linux experience. A Linux distribution, such as Salix (or Slackware, on which it is based) could be said to consist of its repositories, where the software available for that distribution is kept. These packages have been compiled with the kernel and build tools provided by the distribution and tested to ensure they work together. Salix, like most distros (but not Slackware) provides full dependency management, which means that any items the package needs to run are installed too – and also that they are guaranteed to be available.

slackbuilds.org (SBo) provides build scripts for further software not present in the repositories. This means the package will be built on your system before being installed. Salix provides a graphical tool, Sourcery, to manage this; its command-line equivalent is slapt-src. Both do have limited dependency management, but the build is not guaranteed to be successful and some manual tinkering may be needed.

Unlike the software provided in the repositories, these scripts are not maintained by either Salix or Slackware but by individual users, and as such are not the responsibility of either distribution, although help may be found on the forum. If the build fails, the last ten lines or so of the output usually provide an indication of the reason. Most commonly, this is a missing dependency, which may be a build dependency (needed to compile the package, but not to run it). Common packages that are required by several SlackBuilds, but not included as part of a standard Salix installation are cmake and linuxdoc-tools, so first make sure you have these installed if you encounter any problems.

If you don't mind using a bit of extra space on your hard drive, then most of

these problems could disappear by installing the slackware/d and slackware/l package sets:

```
sudo slapt-get --install-set slackware/d --install-set slackware/l
```

You can also create and install your own packages, for which Salix provides a suite of console scripts, especially `slkbuild`*; for further information, see the wiki pages on packaging. When installing packages from any other source, proceed with caution.*

In a nutshell, the first place to look for an application you'd like to use is the Salix repositories, which also access the core of Slackware packages around which Salix is built (Gslapt, slapt-get); second port of call should generally be the slackbuild repo (Sourcery, slapt-src). It is not recommended (especially for beginners) to reconfigure the package management tools to access any other repositories. Should you wish to install any such package, it is probably best to download it individually and install manually (for instance with pkgtool or spkg). Finally, you can make your own package.

Note that twapake is a useful tool available from the repositories to keep track of installed packages, from whatever source.

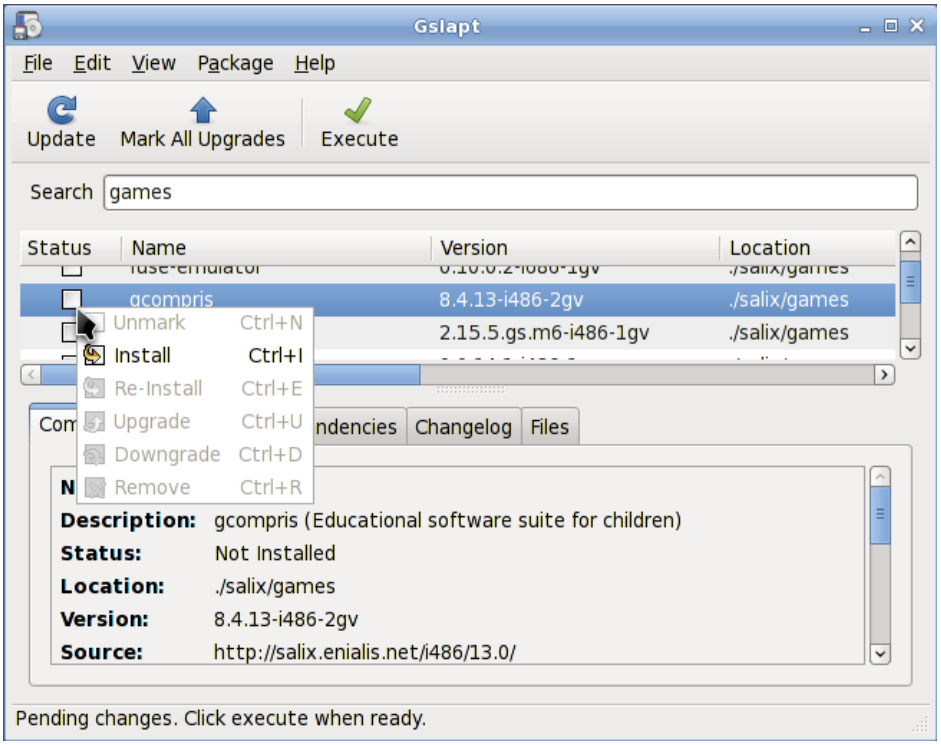
Reminder!

You need to have superuser privileges in order to install or upgrade packages.

3.1.1 Gslapt

Gslapt is the GUI version of slapt-get. It allows one to search Slackware/Salix mirrors for packages. Before use you should first click on the ***Update*** *button to ensure that the latest updates from the software repositories are known to Gslapt. The search field is there for you to search for a particular package. You can highlight with your left click and choose to install/uninstall/reinstall packages with a right click. Gslapt detects dependencies and will install all the dependency files for a package automatically. Installation, uninstallation or reinstallation of packages (whichever applies) will take place once you click on the* ***Execute*** *button. You can blacklist packages by adding their names to the blacklist found in "Preferences" under "Edit".*

On first installing Salix, you should also do a general package upgrade to ensure your installed system is up to date with the repositories – click on "Mark all upgrades", then "Execute".

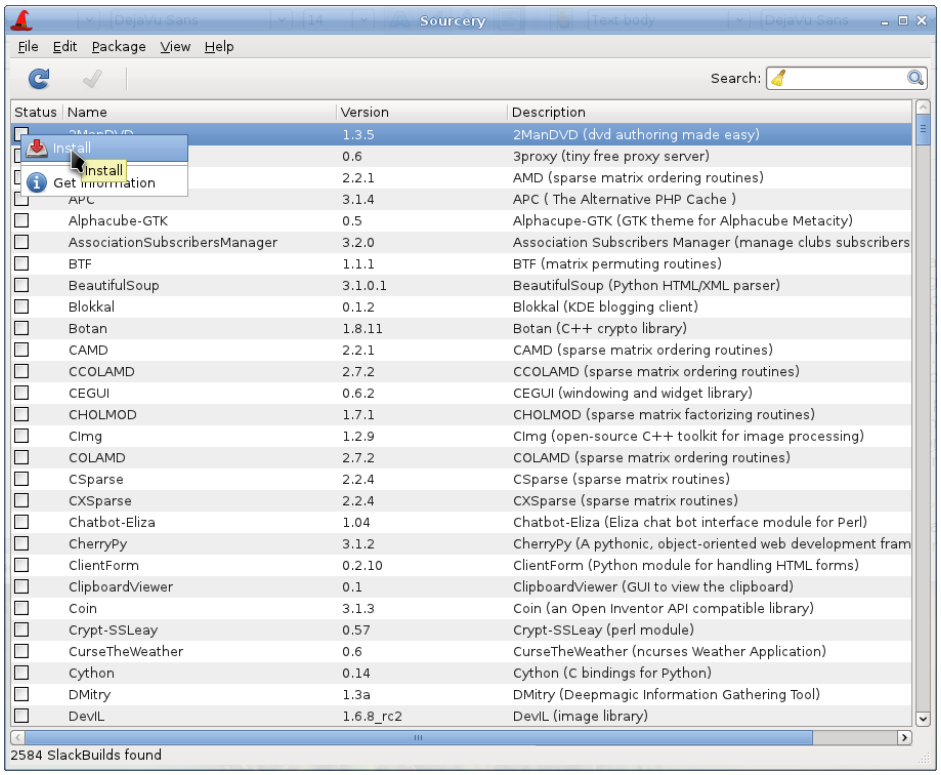


3.1.2 Sourcery

Sourcery is a graphical frontend to slapt-src, a utility to build and install packages from source using SlackBuilds or SLKBUILDs. Before use, you should first click on the ***Update*** *button on the toolbar to ensure that the latest updates from the software repositories are known to Sourcery. The search field is there for you to search for a particular package, and installations, uninstallations or reinstallations of selected packages are done by left or right clicking on their status boxes.*

Installation/uninstallation/reinstallation will take place once you click on the ***Execute*** *button.*

Please be sure to look at the README file for the application, and any other information, before installing. In Sourcery, these files can be accessed by clicking ***Get Information*** *before selecting to install; you can also right-click on the tick box after you've selected it for installation. The readme file, in particular, often has information about dependencies or configuration steps required to make the build work; for example, privoxy needs a 'privoxy' group to be created of which your user is a member, and without this not only will the application not work, the build will fail.*



3.2 Package management from the command line

slapt-get and slapt-src are the command-line tools for which Gslapt and Sourcery provide a GUI. This section describes their use from the command line, where there is also a tool that combines their most common functions, spi. spkg is a tool to install packages manually while still making them known to the package management system.

3.2.1 Salix Package Installer

spi is a command line tool that combines some basic functions of slapt-get and slapt-src. It installs from the Salix repositories if the package is available there, if not, it looks in SBo and repeats the process recursively for any dependencies. This means all packages are automatically installed from the repositories if they are available there, even if it is a dependency of a package that is not. For a summary of usage, see

```
spi --help
```

Note that the default action (if spi is called without specifying e.g. `-i`) is to search for packages, reporting whether they are installed or where they are available. `sudo spi -u` will update package data for both slapt-get and slapt-src, and `sudo spi -U` installs any upgrades available. `sudo spi -i packagename` installs a specific package and its dependencies, always preferring packages in the repositories. `spi --simulate -i packagename` simulates installation, and `spi --show` gives detailed information about a particular package.

Superuser privileges

Superuser privileges are required for actual installation and updating of packages but not actions that just provide information.

While spi brings basic package management together in one all-purpose tool, slapt-get and slapt-src provide a number of other powerful features.

3.2.2 slapt-get

slapt-get is a command line tool for Slackware package management. It allows one to search Slackware/Salix mirrors for packages, compare them with installed packages, install new packages, or upgrade all installed packages. To use the application, open a Terminal window and first issue the command

`sudo slapt-get -u`

in order to update the package database on your computer. Then

`slapt-get -l`

to list all the available packages,

`slapt-get --search [package name]`

to search for a package, and

`sudo slapt-get -i [package name]`

to install a package. For more command line instructions, please refer to

`slapt-get --help`

Here is a little exercise for you. Try installing w3m which is a terminal based web browser, by using slapt-get.

3.2.3 slapt-src

slapt-src is a command line tool that makes the process of downloading and building software packages from SBo simple and easy. SBo keeps a large collection of build scripts for extra packages that are still not available from the official Salix / Slackware repositories. Thousands of extra packages are now available to users through this tool.

To use the application, type in

`sudo slapt-src -u`

first to update on your computer the list of build scripts available from Slackbuild.org.

`slapt-src -l`

shows you a list of available packages, and as in slapt-get,

`sudo slapt-src -i [package name]`

will build and install a package. For more command line instructions, please refer to

`slapt-src --help`

Another small exercise for you! Skype is a commonly used application to make voice calls over the Internet. It is not available from the common Salix/Slackware repository, but its build script is available from Slackbuilds.org. Try installing "skype" by using slapt-src. (If you do not wish to install it, you may just want to build the package. Note that the skype is 32-bit only, so if you are running a 64-bit system, please try out some other application).

3.2.4 spkg

If you would like to install or upgrade a package that you have manually downloaded or have built yourself, you can use spkg. Salix packages (just as Slackware packages) have filenames that end with the .tgz, or .txz extensions (there are also .tlz and .tbz but they are very rarely used). To either install a new package or upgrade a package you can use the following command:

```
sudo spkg [exact path to package]
```

Note that the name of the package must be exact to the last character in the extension, e.g. mozilla-firefox-24.3.0esr-x86\$_{6}4-2gv.txz(commandlineauto-completeusingtheTABkeyhelpsinthisrespect).Removingapackageissomewhatsimilar.Youcanremo

```
sudo spkg -d [software name]
```

e.g. `sudo spkg -d skype`

Blacklisting packages

If you are replacing a package that is available in the repositories, you will need to blacklist this package in */etc/slapt-get/slapt-getrc* to prevent it from being "downgraded" when you next carry out a general package upgrade. (See above for how to do this in Gslapt).

3.2.5 Making a Package from a Source File with SLKBUILD

Installing software from a source file is in most cases not difficult. You can compile a lot of software generally with the following commands.

- *unpack a source file, move inside the folder.*
- *type in `./configure` on the terminal.*
- *type in `make`.*
- *type in `sudo make install`.*
- *type your password.*

Make sure to read accompanying files such as "README", "INSTALL" and so on for installation instructions before compiling. These files may list dependency packages which you need to install prior to the configuration.

```
./configure --help
```

or

```
./configure --help=short output
```

should also help you with some configuration options.

Although you should manage to install the software after the final command, it is essentially ***untracked****, and neither Gslapt nor slapt-get can see that the software is installed. A better way is to create a Salix package using SLKBUILD, which is a build script you can prepare before issuing*

```
fakeroot slkbuild -X
```

to create a Salix compatible package which can then be installed with spkg (the fakeroot package should also be installed). For more on SLKBUILD, please consult SLKBUILD and New to Packaging.

3.2.6 Upgrading Salix to a Newer Version

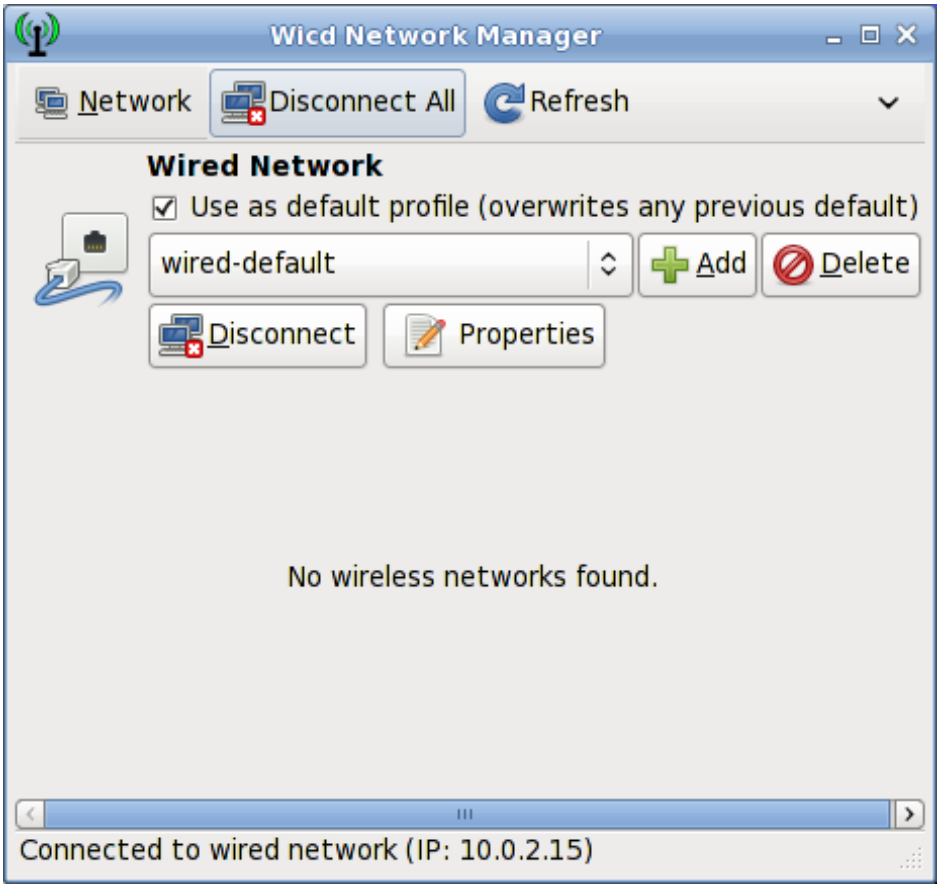
If you wish to upgrade an older version of Salix on your machine to the latest, please refer to the following link for upgrading your Salix.

- *Salix 13.0 to 13.1.*
- *Salix 13.1 to 13.37.*
- *Salix 13.37 to 14.0.*
- *Salix 14.0 to 14.1.*
- *Salix 14.1 to 14.2.*

3.3 Configuring Your Salix

3.3.1 Setting up an internet connection

Network connections are managed by Wicd in Salix. It is an open source wired and wireless network manager for Linux which aims to provide a simple interface to connect to networks with a wide variety of settings.



It will connect to wired (Ethernet only, no PPPoE/DSL support yet) and wireless networks.

*Note that **wicd** and **wireless** must be activated in the system services in order to make wireless networks visible on Wicd.*

3G modems

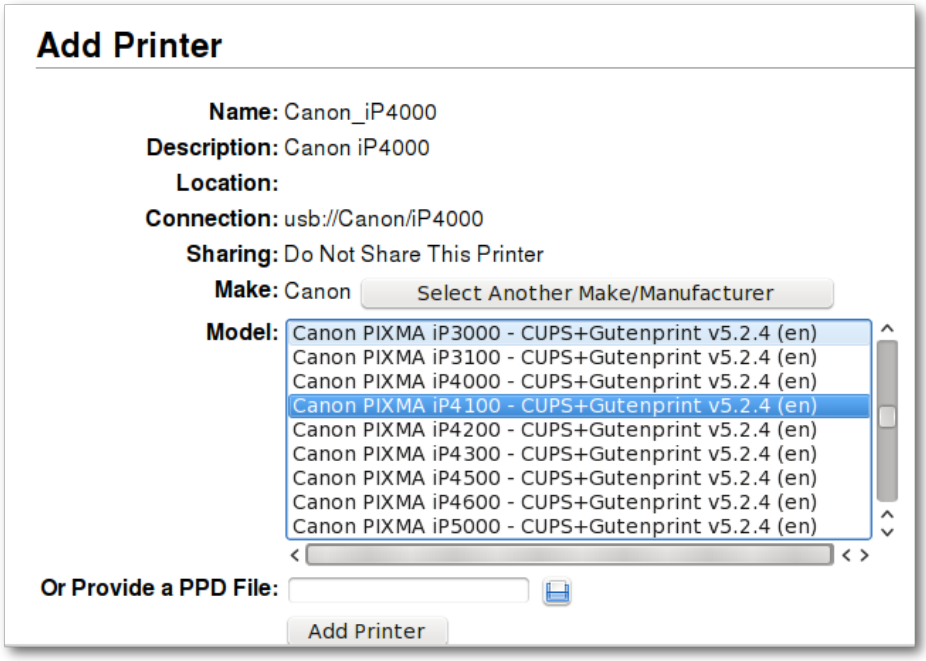
To configure 3G connections, use **sakis3g** (installed automatically when using the "Full" installation method).

3.3.2 Setting up a Printer

*After writing a document, transferring photos from your camera, or creating your own images with GIMP, you would probably like to print them out with your printer. To do this, you need to have a printer already installed on your system. "**Manage Printing**", which is found under "System" in the main application menu, handles the installation and general management of your printers. (Ensure that "CUPS" is enabled in the system services, or Manage Printing will not start properly).*

If you are buying a new printer, it is recommended to check the availability of Linux drivers beforehand from the Open Printing database (or search on the Internet). Some companies offer printer drivers for Linux, but this is less common than desired and could involve a lengthy installation process. For most Linux friendly printers, you have to install drivers such as gutenprint or HPIJS, both of which are available from the repositories.

- *Select "Add Printers and Classes".*
- *Under "Printers", select "Add Printer".*
- *Enter "root" as a username and your superuser password.*
- *Select your printer description and choose if you would like to share the printer.*
- *Select the correct driver from the list (Model) - see an example below. This is the important part. Or if you have a PPD file instead, you can load it here.*



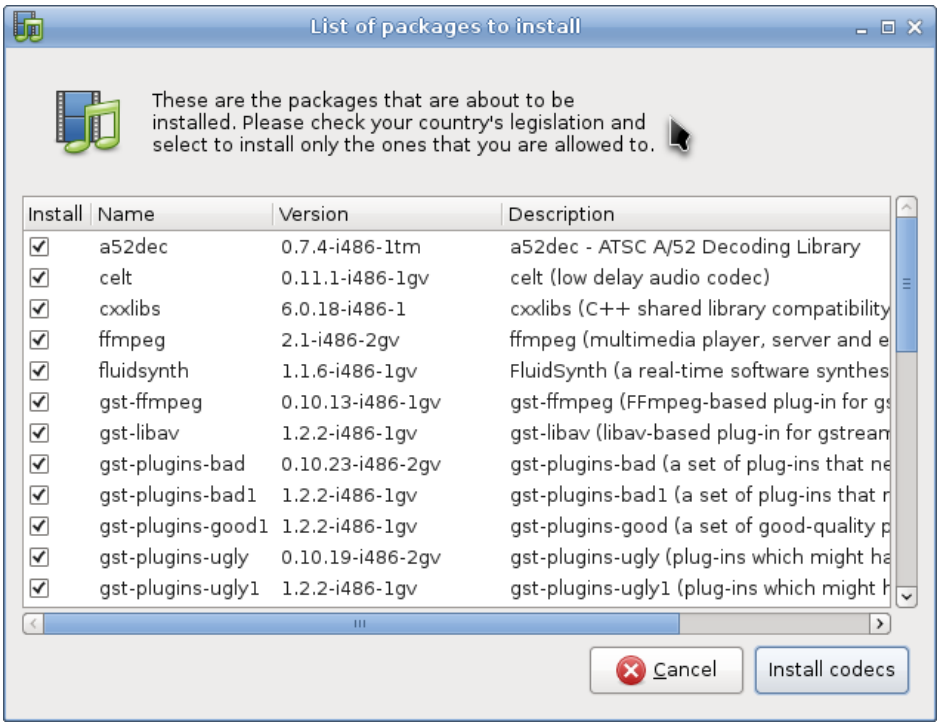
- *Select Add Printer, and finish the process by configuring details of the printer.*
- *Now the printer should be usable on your computer.*

For setting up a network printer, please consult the Salix wiki.

3.3.3 Salix Codecs Installer

Salix only includes, by default, software that is legally free to use in any country, and that means that proprietary media formats are not configured "out of the box". Most commercial DVDs are encrypted, and that means that you need to install certain codecs to view them. This is legally permitted in most countries but not all. Please check and obtain legal advice if you are unsure whether a particular legal restriction applies to a media format or packages you wish to use in your country.

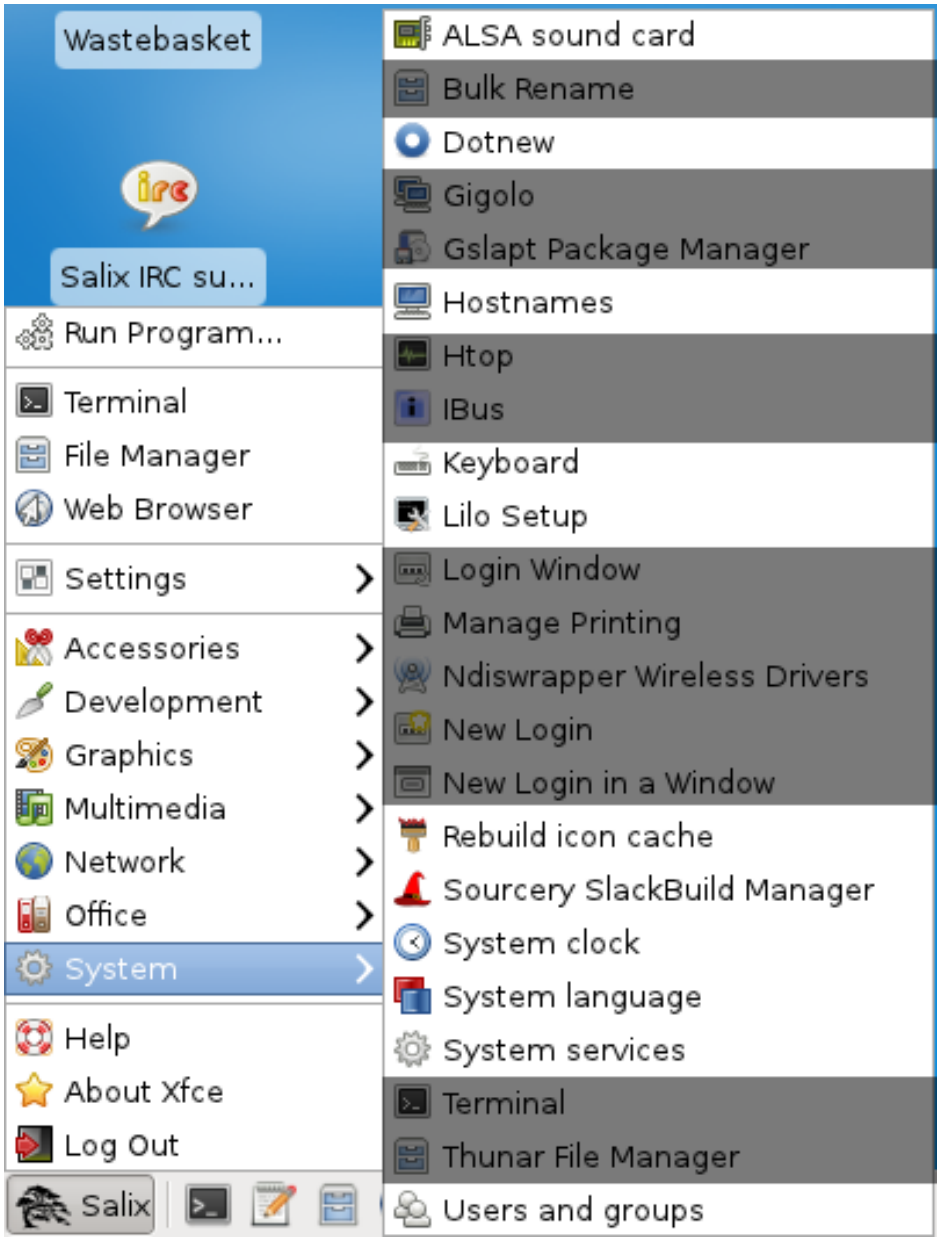
Salix codecs installer can be found under "Multimedia" in the main application menu, and will conveniently install those codecs which enable the viewing of the vast majority of commercial media formats.



3.4 Salix Tools

3.4.1 What are the Salix Tools?

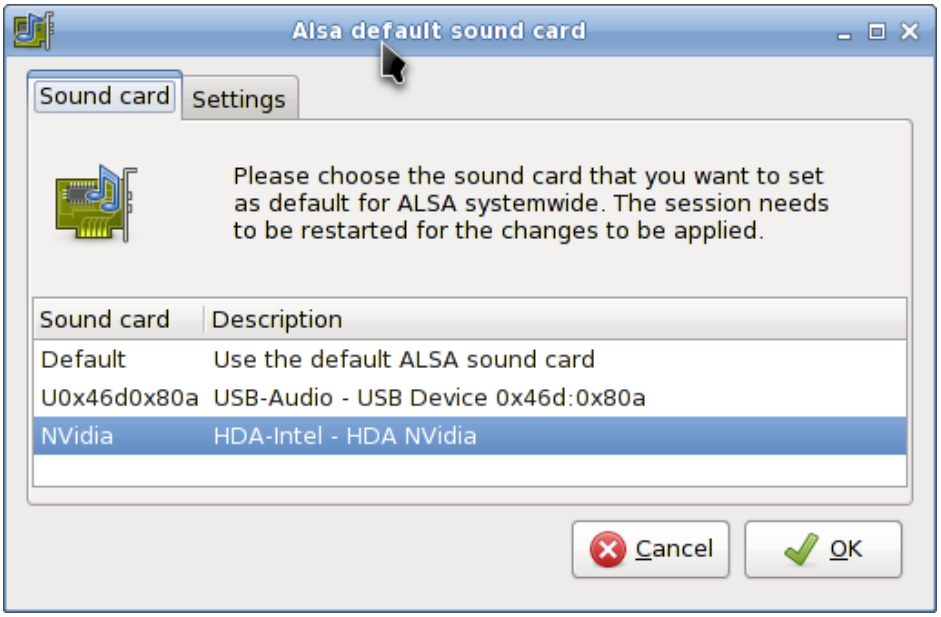
Salix tools are a collection of utilities that are designed to manage every aspect of Salix configuration easily. You can find these tools under the System section of the application menu. Of course, system management in Salix can also be done the usual (manual) Slackware way.



Please note that most Salix tools have an ncurses counterpart which can be used in a Linux terminal or console.

3.4.2 ALSA Sound Card

ALSA Sound Card manages the system sound card configuration. It will display available sound cards in your system and let you select the card you want to use in preference. This is particularly useful when you have multiple sound cards in your system, and you would like to assign a sound card for your system other than the one automatically picked during installation/start-up.

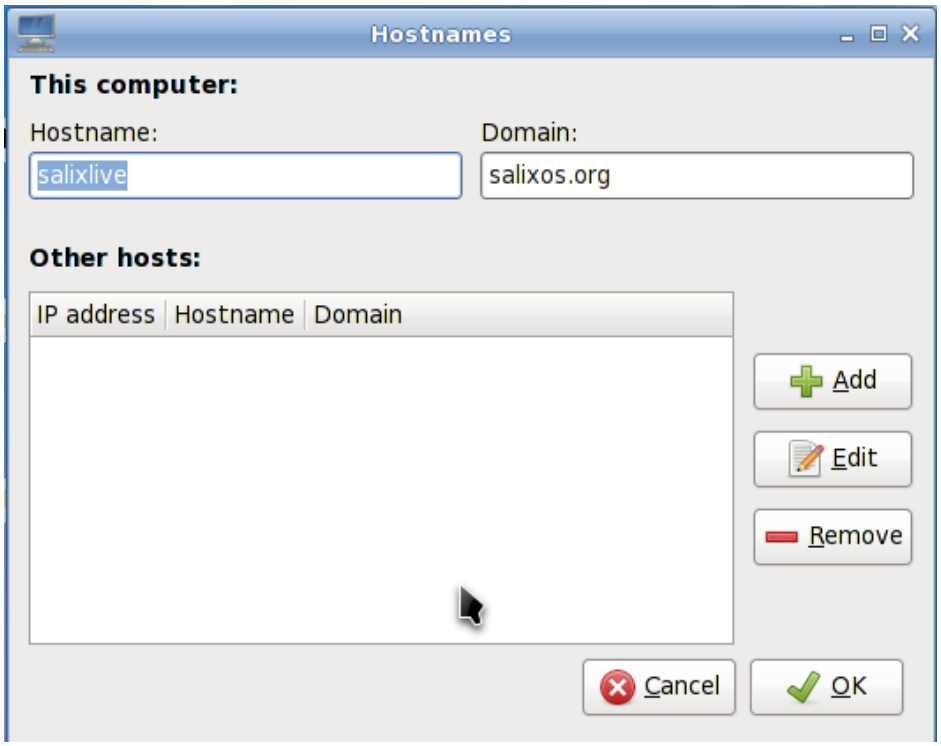


3.4.3 Rebuild Icon Cache

As the name indicates, Rebuild Icon Cache reconnects some icons that may have become lost after updating your system/installing some new program and makes them appear again in the application menu.

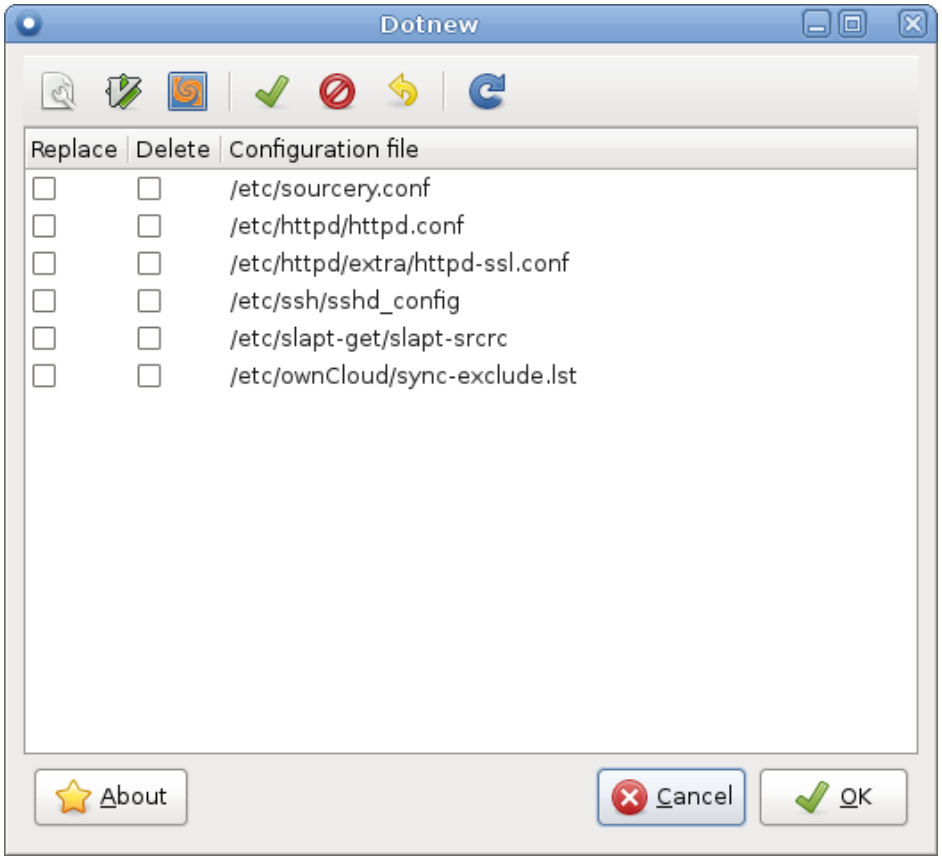
3.4.4 Hostnames

Hostnames manages the host names used by your computer. This tool facilitates defining/overviewing host names used while setting up your machine as a server.



3.4.5 Dotnew

Dotnew manages the system configuration upgrades used by Slackware. It will display a possible course of action for each new configuration file found in the system.

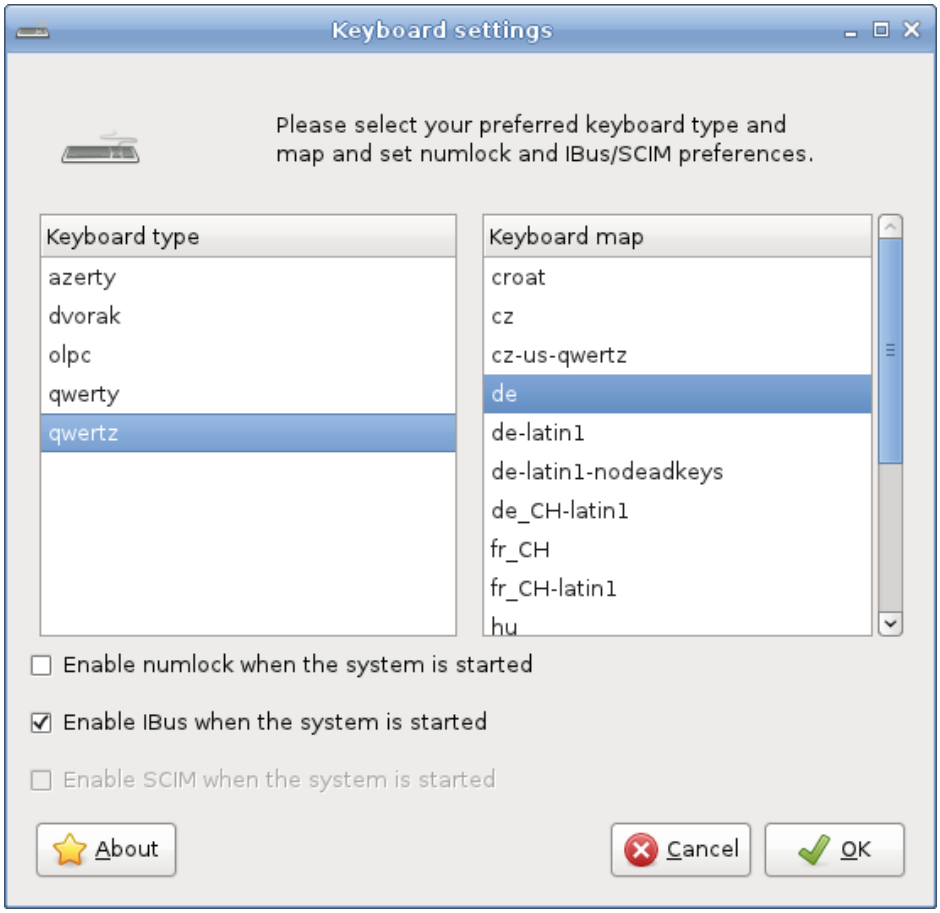


To execute this utility in a terminal, simply type

```
sudo dotnew
```

3.4.6 Keyboard Layout

This utility will configure the keyboard layout being used both in the graphical and non-graphical environments. Modifications are applied instantly.



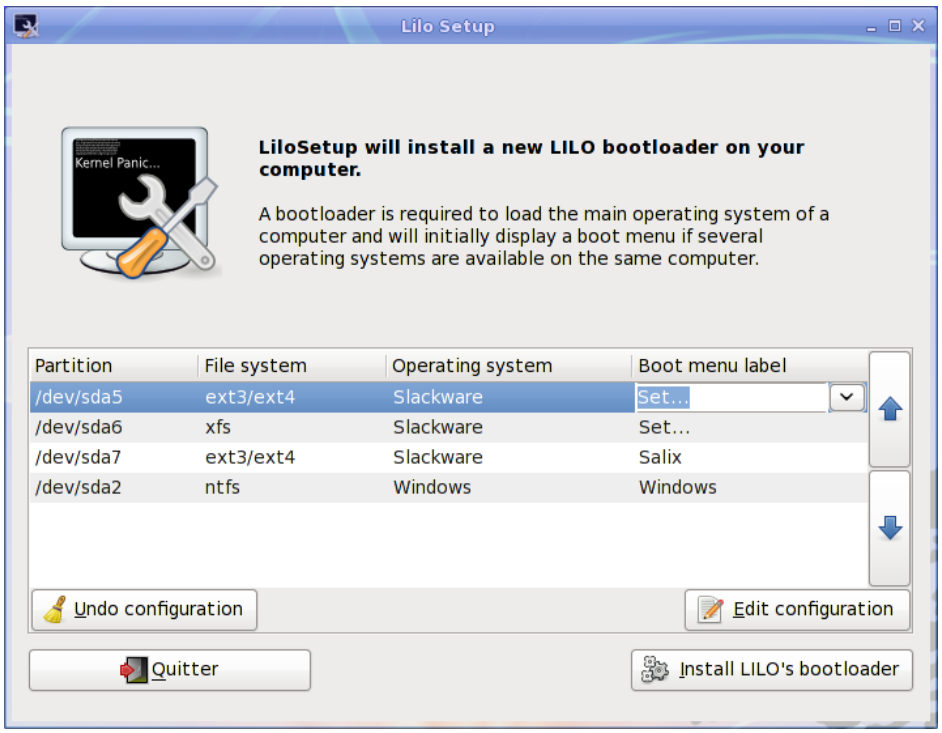
Note that if you would like to activate Ibus during the start up, you can do so by ticking the optional box.

To execute this utility in a terminal, simply type

```
sudo keyboardsetup
```

3.4.7 Lilosetup

Lilosetup will install a new LILO bootloader on your computer.



A bootloader is required to load the main operating system of a computer and will initially display a boot menu if several operating systems are available on the same computer.

It is necessary to (re)configure the bootloader each time you upgrade the kernel or install a new operating system on your computer.

Lilosetup can also be useful in the process of a disaster recovery, in which case you may have to launch it from a Live CD if you have lost all other means to boot into your system.

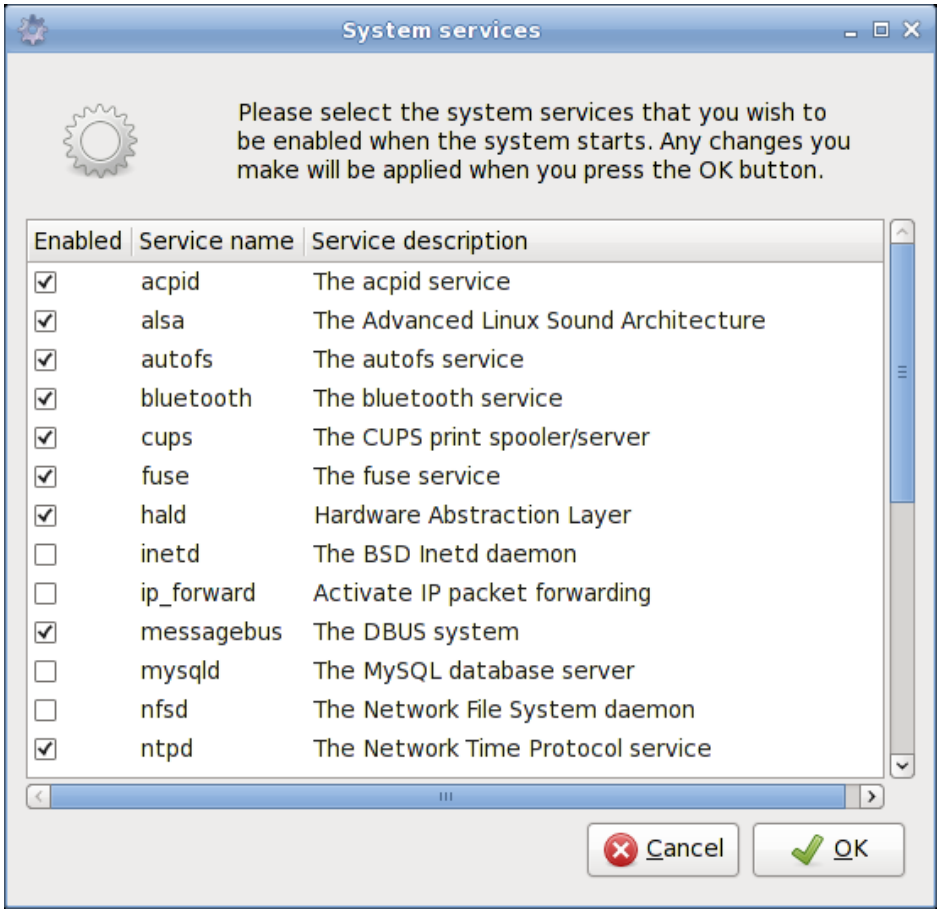
3.4.8 System Services

Here you will be able to select the services that should or shouldn't be activated in the background when your system starts.

All your modifications will be applied instantly if you press the OK button and will not necessitate a reboot.

To execute this utility in a terminal, simply type

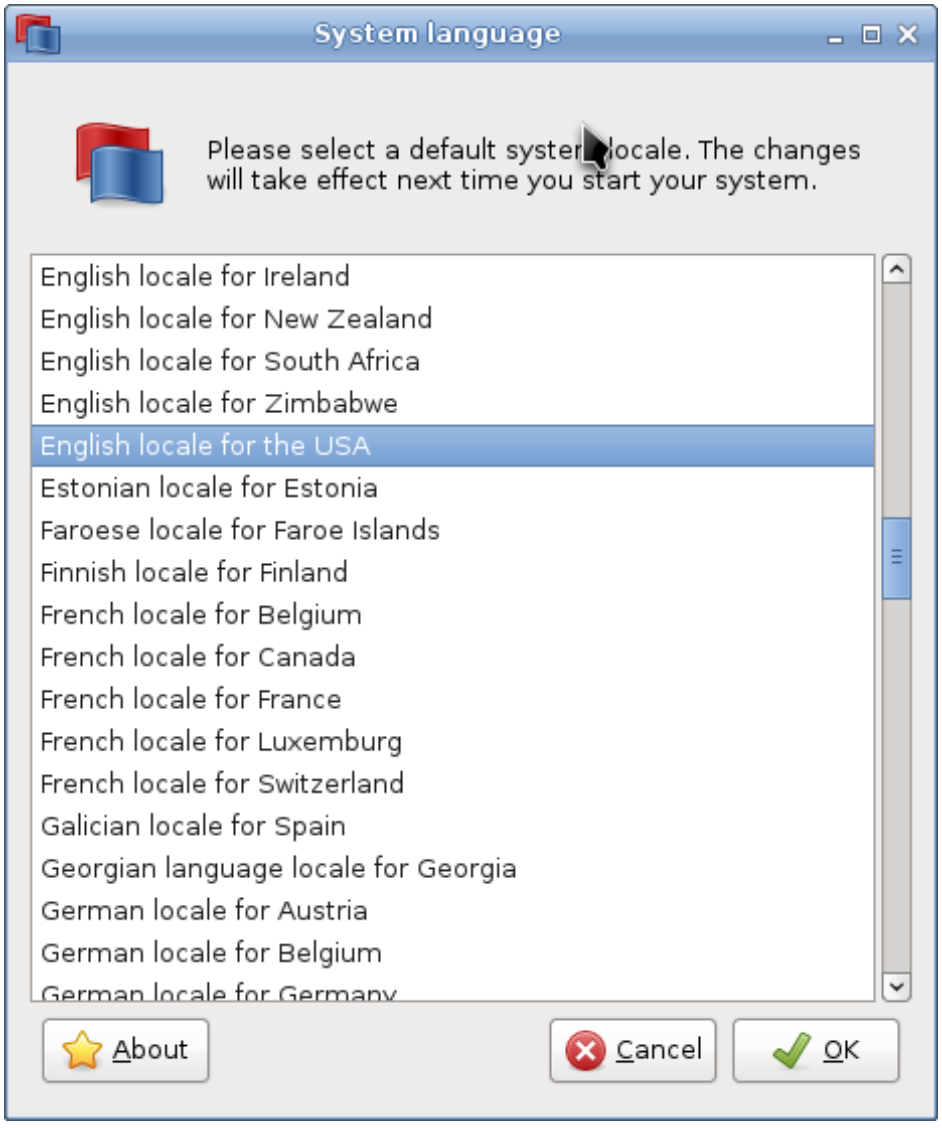
```
sudo servicesetup
```



3.4.9 System Language

This utility will configure the language of your system. To execute it in a terminal, simply type

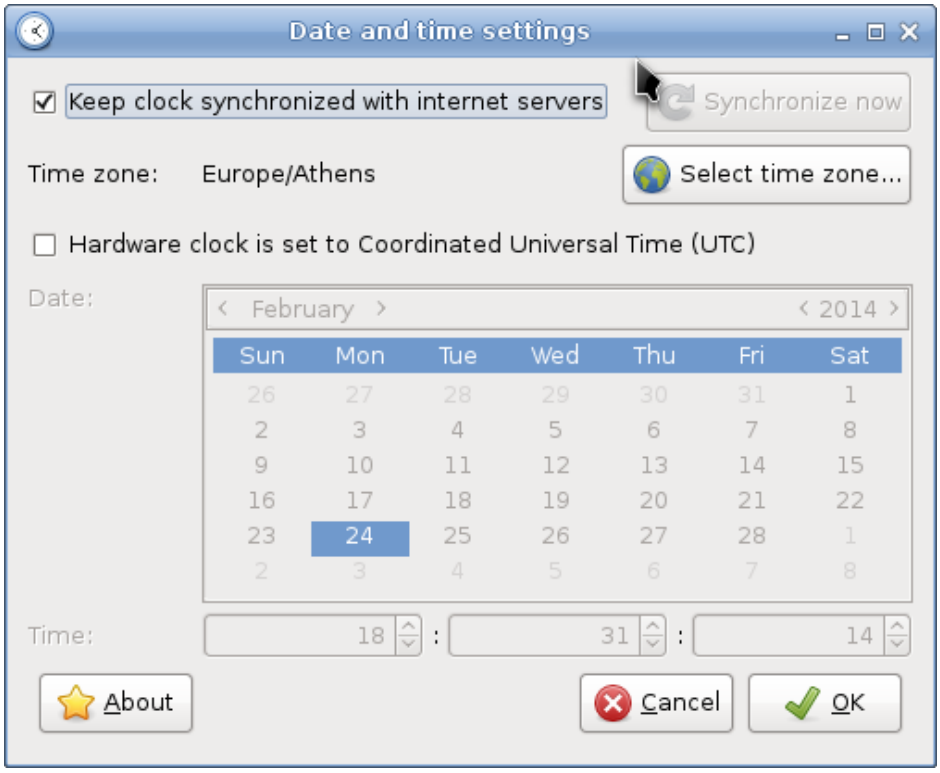
```
sudo localesetup
```



3.4.10 System Clock

This utility will configure your computer clock. To execute it in a terminal, simply type

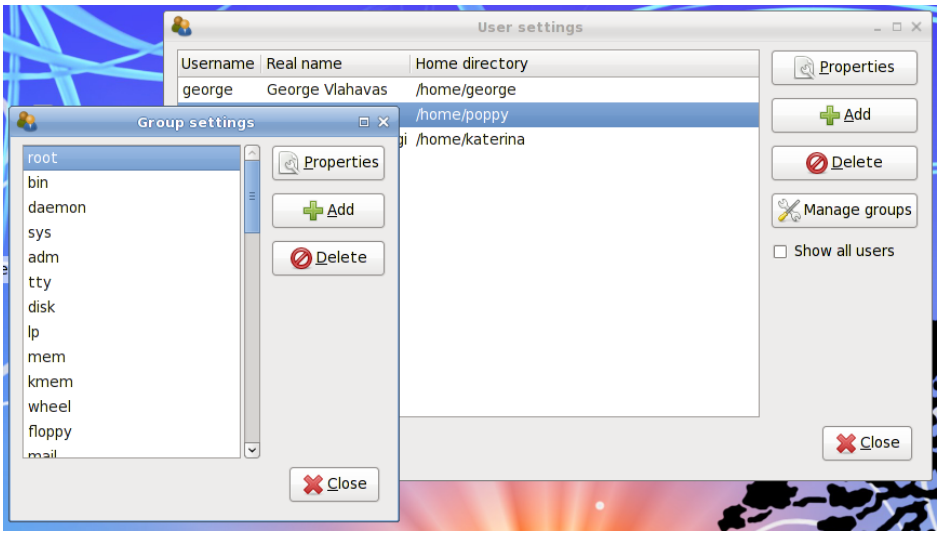
```
sudo clocksetup
```



3.4.11 User Profiles

In Unix/Linux, all users and groups of users are given certain permissions and access rights to some part of the system in order to control their ability to access and change it.

This utility manages the creation, deletion and properties of all the system users and groups of users.



To execute it in a terminal, simply type

```
sudo usersetup
```

3.4.12 Salix-Update-Notifier

Salix update notifier is a tool that periodically checks for available package updates and informs the user about them with the display of a non-intrusive tray icon, which can be used to launch the upgrade process with Gslapt.

3.4.13 reposetup

reposetup is a command line tool to change the repository mirror, allowing you to choose a faster one or temporarily change mirrors if the one you normally

use is down. You can run it from a terminal with:

```
sudo reposetup
```

4 Salix Mini Walkthroughs

4.1 Working with the Command Line Interface

This section deals with working in a console mode or with a terminal (such as Xfce terminal, xterm, konsole and so forth), and serves merely as a light introduction to the command line interface (CLI). The intended audience here is not seasoned travelers but new journeymen in the land of Linux, who are willing to discover more about what one can do with it. We will go through some examples in this section for you to follow, and hopefully by the end of this walkthrough, you will have no problem working with the "black screen". For those who would like to know more about CLI, there are a couple of useful resources available on the net, and some are listed in the Salix Forum.

So why learn CLI commands at all? Graphical user interfaces for applications have been steadily improving in Linux and are probably now comparable to any OS in their ease of use. On the other hand, where Linux excels, in particular, is in the area of command line applications, its traditional strength. Without the CLI, you would be effectively missing out on half of what Linux can offer.

There is another reason. From time to time, you might have to work in the console. For instance, if the machine fails to start up a graphical desktop environment during booting, then you are more or less forced to fix the problem without the graphical user interface (GUI).

Of course, there are many other reasons to learn CLI commands, but for now we will start by learning how to move around directories.

*First, open up a terminal or move to a console: you can do the latter by pressing **Ctrl+Alt+F2**, for example. To get back to the graphical desktop, press **Alt+F4**, for example. F number keys are used to switch between consoles; if F4 or F7 doesn't do the trick, try others.*

However, the simplest option is to open a terminal within the GUI: there is probably an option to do so in the panel, or if not, in the menu.

4.1.1 Moving Around - cd

You should be in your user directory (denoted as ~), which is normally the same as /home/your$\backslash_u ser\backslash_n ame(replace$*your*$\backslash_u ser\backslash_n amewithyourown).InSalix, thisdirectorycor$

```
george[~]$ ls
Desktop      Download    Pictures    Templates    salix
Documents    Music       Music       Videos
```

Now to move around directories, we use the command `cd`. If you just type in `cd` and enter, it will take you to your home directory, but as we are already there, in this case, nothing will happen. `cd` must otherwise be followed either by a name of a directory which is within the directory you are in or by a full path to the directory you wish to move into. You can also go one directory up by typing

```
cd ..
```

(be careful, there is a space between `cd` and `..`). Remember in Linux, *arguments are separated by spaces*. So for now, let's move to the root directory. The root directory is, as the name suggests, the core of your directories - every directory stems from here.

To move to the root `/`, type in

```
cd /
```

Type in `ls` to see the list of files and directories in the directory. You should see something like `tmp/`, `usr/`, `home` and so on. OK, not so interesting here. Let us move back to your home directory with

```
cd /home/your_user_name
```

or just

```
cd
```

Now move into the `Music` directory by issuing

```
cd Music
```

In fact, you do not have to type to the end. By pressing Tab after the first letter or two, you may complete the rest of the directory name automatically.

The important thing to notice here is this is a *relative path*: unlike where the whole path was specified above, starting from the root of the filesystem /, if the path doesn't begin with / it is understood as starting from whatever the current directory is, in this case, your user's home. So `Music`, in this case, means the same as `/home/your`$\backslash_u ser\backslash_n ame/Music$.

4.1.2 Creating a Folder - mkdir

You can create a folder by issuing

```
mkdir name_of_a_new_folder
```

For example, let's say we are going to create a photo folder.

```
mkdir photo
```

will place the new folder in the current directory. You can check this by typing

```
ls
```

Next, let's create a log file for the photo folder. nano is a command-line application for reading and writing texts. To bring up the program, type in

```
nano
```

The application is simple to use, and you can see command options shown at the bottom. Type

log file created

and with Ctrl+x, save the document as log and quit the application.

4.1.3 Copying & Moving & Removing a File - cp & mv & rm

cp is perhaps one of the most used commands in a console mode. cp copies a file or files from one location to another. Since we created the file called log and it is currently in the wrong directory, let us move it inside the photo directory. You can do so by issuing cp log photo/ but perhaps it is better to call the log file not just log but log.txt, so that it would be obvious to a Windows user that it is a text file. Type in

```
cp log photo/log.txt
```

and enter to execute the command.

You can go inside the photo directory and check if the copying has been done properly. cd photo and then ls. The file should be there. Let's add to the log file by saying that it has been moved from Music to photo. Issuing

```
nano log.txt
```

will bring up the text. Add a line to say it has been moved, and then save and quit the application by Ctrl+x.

Oh, but we forgot to delete the original log file in the Music folder. Let's just get back to the Music directory using cd .. and remove the log file by issuing rm log. The rm command removes a file or files. For example, if you would like to remove all photos with .jpg extension but not with .png, you can issue a command something like:

```
rm *.jpg
```

This will remove all the files with .jpg extension within the directory you are in. Note that the rm command will not ask you to confirm your order. It will just carry out your instructions without further ado and once a file is removed, it is deleted forever. You cannot recover it from the recycle bin.

In this example, we used cp to copy the log file and then later on deleted it. Normally, this would be done by issuing a mv command;

```
mv log photo/
```

You can also use the mv command to rename a file. Let's say that you did not like the earlier decision to call the log file log.txt and you now want to rename it as log again. Type in

```
mv photo/log.txt photo/log
```

and execute the command. Now the file name has been changed back to log.

4.1.4 Copying & Moving & Removing a Folder - cp & mv & rm

So now you have the folder called photo and a log file in the Music directory. This is a little strange as we should normally have the folder not in Music but in Pictures. But now you know how to move a file, perhaps the same command will work for moving a folder?

But...

```
cp photo ../Pictures
```

remember that .. refers to the folder one level up) will give an error like this.

```
george[Music]$ cp photo ../Pictures
cp: omitting directory 'photo/'
george[Music]$
```

Let's see what we can do here. The first thing when encountering such a problem is to check the corresponding help file. This can normally be done by issuing a command with an option like cp --help. It is possible that --help will just be -h, and there may be no help at all. man is another command if this is the case.

```
man cp
```

will give a more in-depth explanation of this command. (To get out of the manual, press q).

If you read the help carefully, you will see that you need to give an extra option -r if you wish to copy a folder to another location. So now

```
cp -r photo ../Pictures
```

should copy the photo folder inside the correct Pictures directory. After checking that the folder has been safely copied, you can remove the photo folder from the Music directory:

```
rm -r photo/
```

4.1.5 Installing a Program - spi

Maybe a little bird has told you that there is a wonderful application called *cowsay* in Linux, and now you would like to see what this program can do.

If this is the first time you are installing an application on Salix, the first thing you should do is to update the package database on your computer by executing

```
sudo spi -u
```

Then to search for an application (in this case, "cowsay"), type in

```
spi cowsay
```

Notice that you don't need to type sudo just for searching for a package. The output you will get should be similar to this:

```
george[~]$ spi cowsay
Available packages:
None

Available SlackBuilds:
cowsay [Not installed]: cowsay (A Configurable Speaking/Thinking
                        Cow)
xcowsay [Not installed]: xcowsay (displays a cute cow and message
                         on your desktop)
```

You can see that there is no available package for cowsay in the official repositories of Salix or Slackware. Instead, a SlackBuild is available. SBo maintains extra packages for Slackware, which, of course, can be utilized by Salix users. These SlackBuilds, however, are not maintained by Salix or Slackware, but rather from individual

Slackware users and are not guaranteed to work 100% of the time. Packages, on the other hand, should work perfectly fine all the time, with no exceptions.

To install cowsay using the SlackBuild, you simply must run:

```
sudo spi -i cowsay
```

Actually this is not different at all from what you would have done if cowsay was available as a package. Installing any of the available packages involves downloading the package and actually installing it, while installing something using a SlackBuild, involves downloading the SlackBuild script and all required source files, compiling the source code, packaging it up and installing the package that has been created. All that, of course, is done automatically. It's only just that installing something using a SlackBuild is generally a bit (or a lot) slower since it includes the extra step for compiling the source code.

If you are not sure what this -i is in the above command, you can check it with spi --help. You will see a lot of lines running up the terminal quickly until the application is installed.

Once it is installed, you might want to test it. First get out of the superuser mode by typing exit. Then type in cowsay. Nothing happens, and, in fact, you will see that you are now in a strange mode that you cannot execute any commands. This is because the application is still running, but as you don't see anything, perhaps it is not running properly. To terminate the process, press Ctrl+c. You will get back the normal input line back on your terminal.

```
george[Desktop]$ cowsay
^C
george[Desktop]$
```

So what was going wrong? Check

```
cowsay -h
```

You will see that you need to type in a [message]. Try again with

```
cowsay Hello Salix!
```

We have merely scratched the surface of the power of the command line here. The best way to learn more is by using it, but remember to use the help tools, and consult online documentation such as that listed in the Salix forum. Linuxcommand.org can be particularly recommended if you wish to gain a comprehensive grounding. Proceed cautiously, but don't be afraid to experiment.

A final tip - it can be difficult to copy longer commands accurately. If you select the text with the mouse, clicking the middle button or wheel will paste it accurately into the command line or wherever you wish. This only works in a terminal running within a GUI.

4.2 Getting started with Salix Ratpoison

4.2.1 Overview

Ratpoison is a tiling window manager, somewhat like *xmonad* or *spectrwm*. Its two main features are that applications fill the whole screen, with no bars or buttons, and the user interface can be controlled entirely from the keyboard, with no mouse. If needed, any number of windows may be shown simultaneously and rearranged at will - hence the term "tiling" WM. All this may take some getting used to, but although - or perhaps because - the interface is so very different from the conventional point-and-click approach, it can quickly become highly intuitive. Learning which actual keys do what takes far less time than might be imagined. Apart from its efficiency and lack of clutter, Ratpoison is a good choice for anyone concerned about RSI (cumulative strain from long-term mouse use), or for netbook users, because "every pixel counts". It is also highly configurable - and fast!

The applications present for the Ratpoison edition aim to fit in with its minimalist (but not spartan) approach. The majority use vim-style keybindings, even though Ratpoison itself does not, so users will need to become comfortable with these if they are not already; cheat sheets are available online to help assimilate them, as well as guides (and manpages) for the individual applications. Common operations use only a small subset of keys, which makes the learning curve smoother: for basic browsing, for instance, all you need to get started is page and history navigation and to know how to open links and tabs or windows. Other functions can be learned by exploration at your own pace. To begin using Vim itself, try running vimtutor from a terminal, and just follow the instructions.

4.2.2 Starting Ratpoison and running applications

When you boot Salix Ratpoison, there is no graphical login screen: when you log in, you enter the Linux terminal. Log in as your normal user and type

```
startx
```

to start Ratpoison itself.

You should then see the Salix wallpaper, and a message will appear briefly telling you how to view a list of commands. Type Ctrl-t

(C-t, in Ratpoison's own notation) then a question mark; pressing any key takes you back to where you were before. There is nothing to see (apart from the beautiful Salix wallpaper)! But it's just as easy to set Ratpoison to work as with any more conventional desktop.

To select an application from the menu, type C-t r, and use the arrow keys to navigate (Vim's hjkl keys also work). Right arrow (or l) accesses submenus (such as "Network") and left arrow (or h) goes back up a level. Right arrow or enter runs the application (if you open one by mistake, don't worry, just type C-t r again - we will see how to close windows and applications later).

Some common options are available directly at the top. The *Vimprobable2* browser, for instance, can be found under Network but also by just selecting "Browser". Remember to use the keyboard and not the mouse! A third way to open it bypasses the menu altogether:

C-t v

You can create more shortcuts like this for applications you use a lot by adding them to the configuration file, which we will look at below.

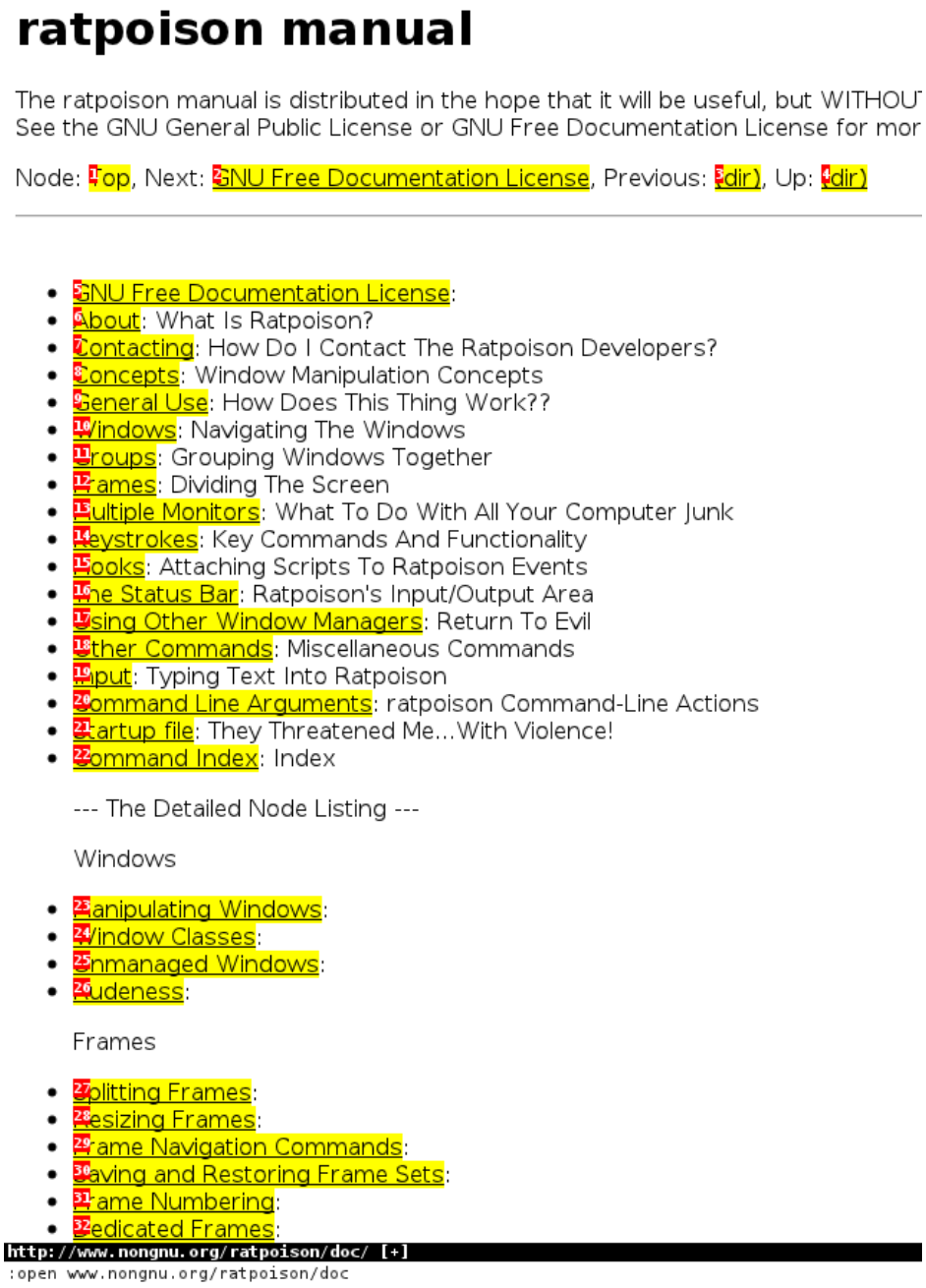
apvlv, under Accessories, can be used to read pdf documents such as this guide. Also under accessories, "Unit conversion" starts the console application units, which will convert between a large range of scales, such as time, weight, or currency, including some quite unusual ones.

4.2.3 Vimprobable browsing

Notice that there are no menus, toolbars, buttons, or scrolling - just a line at the bottom containing the URL. To open a different page, type o, and :open should appear at the very bottom left of the screen. Type:

http://www.nongnu.org/ratpoison/doc/

When the page has loaded, type f and then select a number to follow a link:



Shift-h takes you back to where you were before. t works like o but opens the URL in a new window, as does shift-f instead of f. Pressing TAB after typing the beginning of a URL will suggest completions

taken from the history; use TAB again to move through the choices (shift-TAB to go back up) and Enter to select. O rather than o (and T rather than t) allows you to edit the URL of the current page - try it. j and k scroll down and up. Shift-l moves one page forward in your browsing history. d closes the current window. For more details, consult man vimprobable2, as well as the Vimprobable website, see also man vimprobablerc for configuration options. Note that . and , are handy alternatives to f and shift-f.

There are no tabs. In the next section, we will see how Ratpoison allows you to use windows to do the work of tabs, but more informatively.

Note that if the input received by o or t can't be resolved into a URL, it will be sent to a search engine; the default is *DuckDuckGo*. If the first item is i, s, w, wd, or y, a different search engine is used in each case. These shortcuts are described in the Vimprobable man page and may also be customized in the .vimprobablerc configuration file.

To insert data in forms (for instance, login and password) use tab till the cursor is in the right place. Another TAB moves to the next field or link; you may then use ESC to leave insert mode and return to command mode.

If you find your keystrokes are still being interpreted as browser commands, which may happen as a result of the way certain sites are designed, try pressing enter twice instead of just once after typing f and selecting the number; failing this, try C-z. The converse problem may arise if you have inadvertently passed keystrokes to o or t; they will appear at the very bottom right of the browser window. To ignore them and return to command mode, clearing the buffer, press ESC.

As described in Vimprobable's man page, it is necessary to create some files for all its features to work:

```
touch ~/.config/vimprobable/history
```

though some of these may already be present.

4.2.4 Window management

Let's now see how Ratpoison deals with several open windows. C-t w generates a list showing all of them. Notice that each one is associated with a number: C-t followed by the number changes to that one. C-t C-t returns to the previous window. This is very useful

indeed for switching rapidly back and forth between two apps - for instance, an editor and a browser - and is an example of how Ratpoison shines ergonomically. C-t k closes the current window, and C-t shift-k kills the current application. To see a list of commands, type C-t ? for further detail, see also

```
man ratpoison
```

and the online manual, which we opened above with *Vimprobable2*.

To work with two or more windows together, Ratpoison allows the user to tile windows. C-t s splits the screen with the current window above whichever window was last open; C-t S splits them horizontally. These steps can be repeated to split the focused window further. C-t TAB (or C-t and an arrow key) moves the focus around, and C-t C-[arrow] swaps the tiled windows over. C-t Q undoes the splitting and allows the currently focused window to fill the screen. In practice, it's rarely useful to have more than one or two windows visible:

4.2.5 The console and package management

To open the command line, type C-t c. There is no automatic package management in the Ratpoison edition, so you will need to make regular manual checks for updates:

```
sudo spi --update  #update the package list
sudo spi --upgrade #upgrade to reflect any changes
```

(the parts including the # symbol and after them are comments and you don't need to type them).

Apart from the *Vimprobable2* browser, the default applications include *Alpine* as the mail client and *Gnome Commander* as the file manager. *Music On Console* and *Whaaw Media Player* are the audio and video players, with *GVim* as text/code editor. *apvlv* can be used to view pdf files. As we have just seen, package management is console-based using *slapt-get* and *slapt-src*. Further options are available in the repository. *Firefox* may be installed adding the *pentadactyl* or *vimperator* addon for mouse-free browsing, or alternatively *Jumanji*, *XXXTerm* or *w3m*, a browser for the command line. *Thunderbird* can be used with the *Muttator* addon while *Claws-mail* works almost entirely from the keyboard; *mcabber* and *irssi* are Jabber and IRC clients for the console.

Note: To see how to edit Alpine's configuration file to access mail from one popular provider via SMTP, see the page in the Salix wiki.

Wordgrinder and sc are word processing and spreadsheet applications. Flash is not included but is available from the repositories. Screen for managing multiple consoles works well with Ratpoison. Users are encouraged to tailor and expand the application selection according to taste; when it comes to text processing, for instance, *PyRoom* is an elegant choice for full-screen, distraction-free writing, and it might be complemented by *Antiword* to convert proprietary file formats into plain text.

Note that the *Gslapt* and *Sourcery* graphical package management tools (equivalent to *slapt-get* and *slapt-src*) may also be used with out mouse, though this is perhaps more awkward than working on the command line. In either case, regular manual upgrading will still be necessary.

As an example, we will install *mplayer2*, the classic console media player.

```
sudo spi -u
sudo spi -i mplayer2
```

Note: To see how to edit Alpine's configuration file to access mail from one popular provider via SMTP, see the page in the Salix wiki.

4.2.6 Editing the configuration file

After using *Alpine* a little, one problem may become apparent. Its shortcut for selecting a file, for example to attach it, is C-t. But that's Ratpoison's escape key combination! In fact, Ratpoison has a solution for such conflicts, referred to somewhat cryptically in the shortcut list as *meta*: C-t t should send C-t to the application in the active window. However, this does not work in the terminal, which does not recognize the character if it receives it in this form.

Everything in Ratpoison is configurable, and the C-t combination itself is no exception. A temporary solution is to reassign the binding using Ratpoison's command input feature. C-t : conjures up an input line at the top right of the screen. This can be used for passing instructions to Ratpoison. For instance, one way of opening an application in a new console is:

```
C-t :exec xterm -e alpine
```

which starts the program we just installed. The colon command can be used to pass a number of instructions to Ratpoison; see

```
man ratpoison
```

for a full list together with shortcuts where they have been defined. In fact, there is a shortcut for exec. Just type

```
C-t ! [application]
```

C-t C-! opens it in a console.

To change the C-t default, do: C-t :escape Super$\backslash_L$, *whichistheso–called"Windowskey"tothelefto fthekeyboard.Aswellasresolvingtheconflictwith* ***Alpine****, thishastheg*
C-t :escape C-t.

To make such a change permanent, edit *~/.ratpoisonrc*. If you are using Ratpoison, you can open the file now (with *GVim* or *Vim*) and tile it horizontally with the window where you are reading this guide (C-t Shift-s). Let's go through some items in the file.

```
# .ratpoisonrc

banish
% !! there is no such application in the repositories
```

```
set border 0
set barpadding 0 0
set font terminus
set winfmt %n%s%a

bind W exec rpallwin
bind r exec ~/.ratmenu/main.sh

bind F1 exec rpws move1
bind F2 exec rpws move2
bind F3 exec rpws move3
bind F4 exec rpws move4
bind F5 exec rpws move5
bind F11 exec rpws moveprev
bind F12 exec rpws movenext

bind v exec vimprobable2

# set default background
%this will need updating
exec feh --bg-scale /usr/share/xfce4/backdrops/StairWay.png

# create 5 workspaces and create aliases (run: rpws help)
exec rpws init 5 -k
```

banish sends the mouse pointer to bottom right (incidentally, you may wish to install *unclutter*, which makes it fade out altogether after a few seconds of stillness; place the line

```
unclutter &
```

in your *~/.xinitrc* to run it automatically when X is started). We've seen all but one of the custom keybindings in the "bind" statements. To change the wallpaper, point to a different image. The final item sets up workspaces, which we'll look at next - including C-t W.

Before editing the file, create a backup copy in case anything goes wrong. To change the C-t default, simply add a line:

```
escape Menu
```

We've seen many of the custom keybindings in the "bind" statements.
The final item, together with the bindings to function keys, sets up workspaces; we'll look at these next - including C-t W.

4.2.7 Using workspaces

If you have several terminals open, and various browser windows and some other applications, the number of windows may become unwieldy. To help with this, Ratpoison allows you to use workspaces. (In the online Ratpoison manual, these are referred to more precisely as "groups".) You might then put all browser windows in one workspace, for instance.

C-t w lists the windows in the current workspace; C-t W shows four more workspaces, which were set up in the last line of the configuration file. In a console, type rpws help .

```
$ rpws help
Usage:
     rpws init n [-k] [-a]  - setup rpws with n workspaces.
                               -a sets up command aliases;
                               -k sets up key bindings and aliases.
     rpws dump <fname>      - dumps the current layout to <fname>
     rpws restore <fname>   - restores rpws workspaces from <fname>
     rpws help              - this documentation
     rpws n                 - switch to this workspace

Usage:
    Add the following line in ~/.ratpoisonrc

         exec /path/to/rpws init 6 -k

    This creates 6 aliases rpws1, rpws2, etc. It also binds the keys
    M-F1, M-F2, etc to each rpwsN alias. Moreover, rpwsn (Next) and
    rpwsp (Prev) are created, and C-M-{Right,Left} are bound to
    rpws{n,p}. Full list of keybindings created are:

        M-F$i           Goto workspace $i
        C-M-Right       Goto Next workspace
        C-M-Left        Goto Prev workspace
        C-t F$i         Move window to workspace $i
        C-t F11         Move current window to prev workspace
```

```
        C-t F12          Move current window to next workspace

for more detailed documentation run "perldoc /usr/bin/rpws"
```

The usage summary you will see may be a little cryptic. Just as C means Control, M refers to Alt. Use Alt with the function keys to access each workspace. Ctrl-Alt and the arrows move up and down workspaces. The remaining options move the current window to a different workspace.

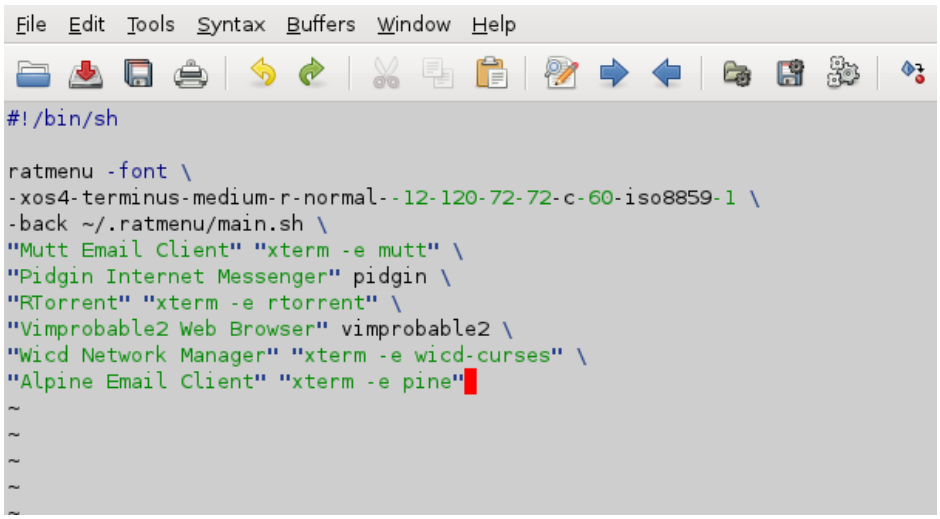
4.2.8 Adding an item to the menu

The directory ~/.ratmenu contains the main menu file *menu.sh*, and the submenus it calls; all these are editable scripts. We will now edit the Network menu using *GVim*. *GVim* is in the menu, but try calling it using the colon

```
C-t :exec gvim ~/.ratmenu/multimedia.sh
```

or simply

```
C-t ! gvim ~/.ratmenu/multimedia.sh
```



Note that graphical applications are called directly, but command line programs need to be opened inside a terminal.

Use j and k to navigate to where you want to add the entry for *Mplayer2*, type i to insert, ESC to return to command mode, and :wq to write and save. Test the change by typing

```
C-t r
```

The new item should already appear. If all is well, you may close the editor.

4.2.9 Summary

Here is a short list of key bindings common to many of the Salix Ratpoison edition's applications.

Shortcuts	Description
gg	go to the top
G	go to the bottom
h	left
j	down
k	up
l	right
TAB	select form fields, links. C-z to type in some forms
o	open
t	open in new tab/window
f	follow a link
d	close/delete
H	go back
/	search forwards
?	search backwards
ESC	return to command mode (and clear the buffer of any mistyped keystrokes)
:	pass a non-shortcut command to the application

For a summary of Ratpoison's own shortcuts, type C-t ?.

While what is covered here should be enough to get you started, many more features of the applications and especially Ratpoison itself are described in online manuals, guides and the manpages. Once you are used to the core features and have them at your fingertips, it's worth digging around further, as well as investigating suitable applications to add to the set. Configuration may be done straightforwardly by editing the files - suggestions may be found online. One of Ratpoison's principal charms is how easily it can be tailored to fit each user's needs and taste.

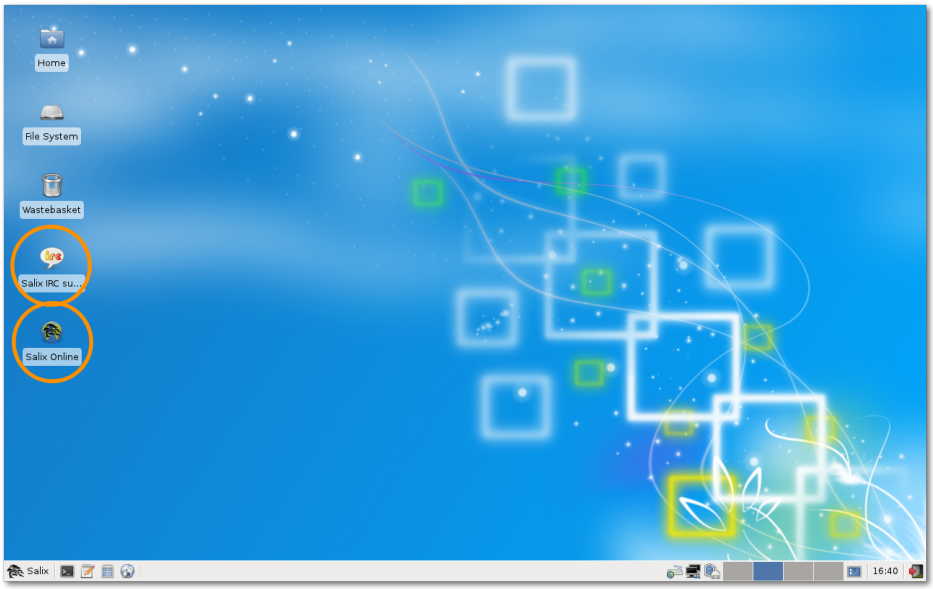
One miscellaneous item is the mount manager in the System menu, which may also be called from the command line as *gmountman*. When needed, this deals with the mounting of removable devices, including DVDs. Also, *banish* may be called at any time by the shortcut C-t b.

Remember to check frequently for package updates using *slapt-get* or *spi*.

Finally, to shut down Ratpoison, there is an entry in the Exit submenu, from where it is also possible to reboot or shut down the computer.

5 Support

If you are still quite new to either Salix, Slackware or even Linux in general, then you should first of all take some time to study Salix Startup Guide, as it is specifically intended to be accessible to newcomers. The desktop link, Salix Online, will bring you to the Salix Homepage. You could also use the IRC link to be in live communication with members of the community and get instant help if necessary. If you do, however, you might want to modify the default *qwebircxxx* login to something more personal and human readable.



We hope that the information here will allow you to get Salix

up and running fairly straightforwardly, to begin exploring its potential, and, above all, to use it for what you want to do. Nonetheless, sometimes you may not know how to do something or be able to make it work.

While Salix aims to be elegant and intuitive, every operating system has its own characteristics, and if you are new to Linux, the sheer fact that it is different means there will inevitably be a process of adaptation (see Linux is Not Windows), even where its very best features are concerned. The only way to climb the learning curve is by trying things out and using them. The more you explore Salix, the quicker you will become familiar with it. However, it is worth emphasising that the default set of applications (they vary depending on the version of Salix you choose, see List of Applications) include many that have a very similar look and feel to those found on other operating systems, such as the office suite LibreOffice, which offers full compatibility with common file formats.

Our Wiki and Forum will be two other important sources of information. The search option of the forum will quickly show you if the question you have in mind has already been posted by a member of the community and if it has been answered. For the same reason, please also search the internet. If you are working on the command line (Working with the Command Line Interface), remember to consult man (and try man salix for a summary of key points specific to this distribution). There are several online forums devoted to Linux, such as linuxquestions.org. It should be noted that each forum has its own subculture, and sometimes explicit posting guidelines. If you post a query to a forum, bear Paul Grice's conversational maxims in mind: for instance, be as specific as possible and mention any information you have already found out. To put it another way, remember you are consulting a human community, not an interactive online encyclopedia; it is a conversation, something which can be easily lost sight of online.

Forums are a concrete example of one of the qualities at the heart of Linux, which is that it is community-based. Rather than being a commercial product, in almost all cases it is developed by enthusiasts collaborating together for the sheer delight of making good software. This community extends out into the users of the distribution on its forums. Even if you just want to use core office, multimedia or network applications productively, over time the power that Linux gives users tends to promote self-reliance and an ability to configure and fix their computer setup independently. The same approach underlies the development of Linux as an operating system; where there is room

for improvement, someone will dive in and tinker. The cumulative result is that Linux today is highly usable out of the box.

The best way to learn Linux is by using it to the full, finding out in the process how to make it do exactly what you want. After a while, though, it may be helpful to supplement this experience with some more systematic background. As mentioned in the section introducing the command line, the Documentation board on the Salix forums contains a useful post on tutorials and guides. Wherever you find problems recur, it may be worth reading up on the underlying issues over time to gain broader knowledge, especially when it comes to general features of Linux that may be unfamiliar to you, such as file permissions.

Some users may face problems at the very beginning with peripherals or the network. This can seem daunting if you are also adapting to a different operating system at the same time. Explore the options under Menu/System carefully. If difficulties persist, with judicious use of the information and help in the wiki and forums, you should hopefully get the essentials set up as you wish reasonably quickly; then you will be able to take Linux at your own pace.

6

Appendix

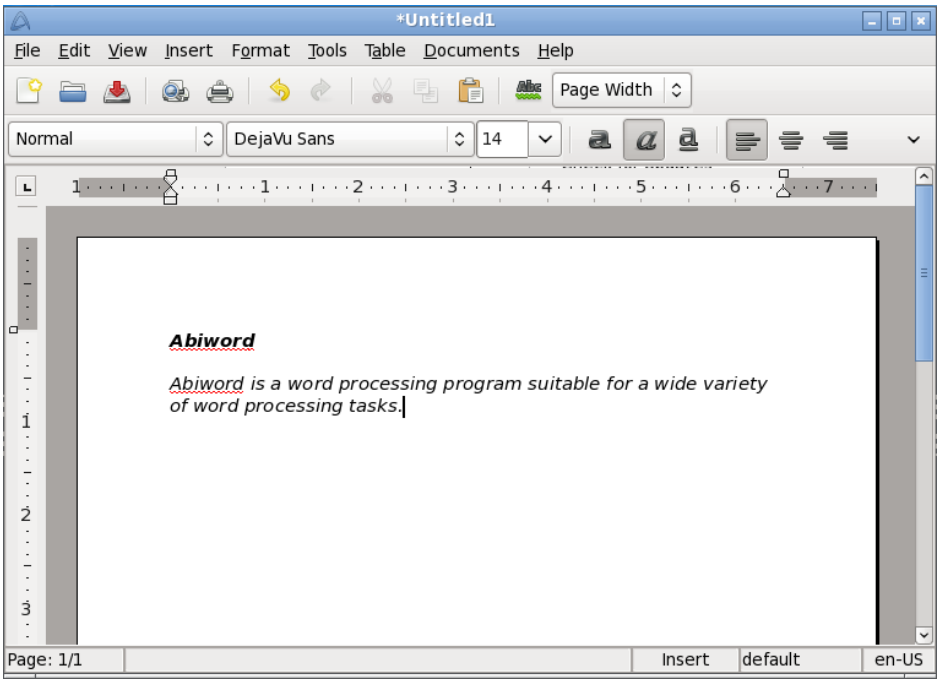
List of Applications

Salix Edition	MATE	Xfce	KDE	Ratpoison
Web Browser	Firefox	Midori	QupZilla	Vimprobable2
Word Processor	LibreOffice Writer	LibreOffice Writer	KWord	Wordgrinder
Email Client	Claws-mail	Claws-mail	KMail	Alpine
Picture Viewer	Viewnior	Viewnior	Gwenview	Feh
Image Editing	GIMP	GIMP	Krita, Kolorpaint, Karbon14	-
File Manager	Caja	Thunar	Dolphin	Gnome-commander
Window Manager	Marco	Xfce	KWin	Ratpoison
Instant Messaging	Pidgin	Pidgin	Kopete	Pidgin
Spreadsheet	LibreOffice Calc	LibreOffice Calc	KSpread	sc
Text Editor	Leafpad	Leafpad	KWriter	gvim
IDE	Geany	Geany	-	gvim
PDF Reader	Atril	Atril	OKular	apvlv
Multimedia Player	Totem	Parole Media Player	Bangarang	Whaawmp
Music Player	Exaile	Exaile	Clementine	Music On Console
Disk Burner	Caja	Brasero	K3b	-
CD Ripper	Asunder	Asunder	K3b	-
Torrent Client	Transmission	Transmission	KTorrent	rtorrent
Blogging Client		-	Blogilo	-
Organiser	-	Orage	KOrganizer	-
PIM	-	-	Akonadi	-
Desktop Wiki	Zim	Zim	KJots	-

Selected Applications found in Salix

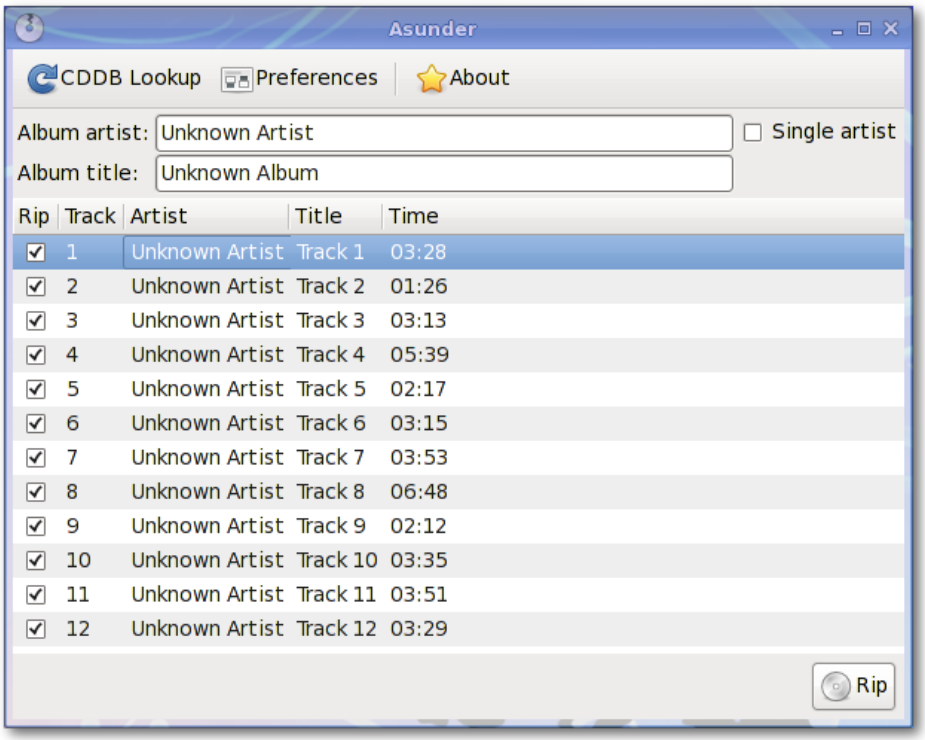
Abiword

AbiWord is a word processing program suitable for a wide variety of word processing tasks.



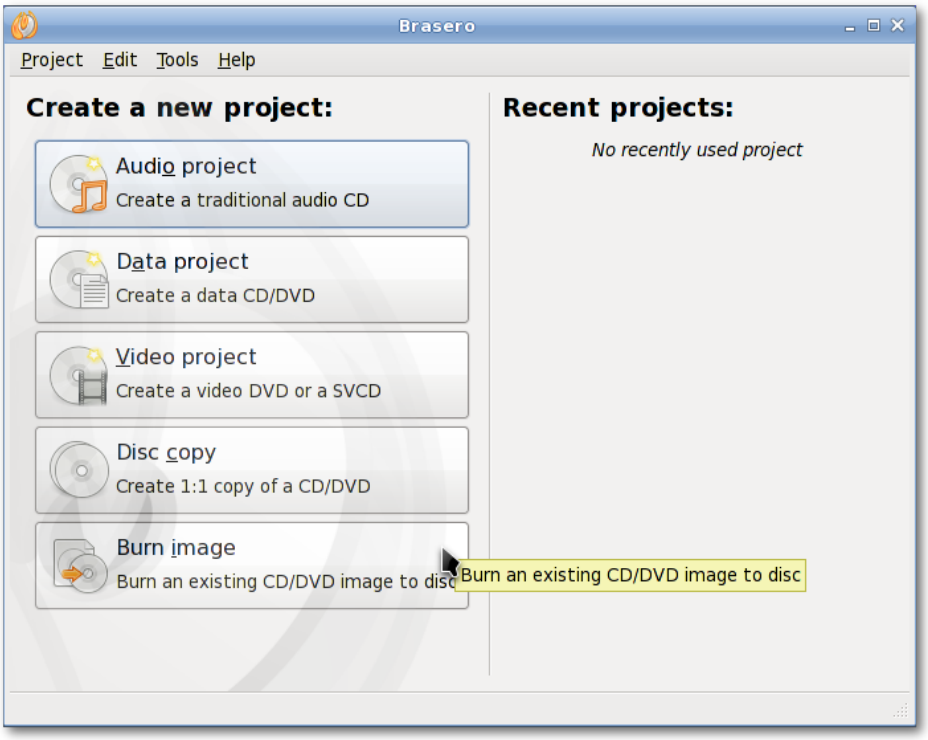
Asunder

Asunder is an Audio CD ripper and encoder for Linux. You can use Asunder to save tracks from an Audio CD as any of WAV, MP3, OGG, FLAC, WavPack, Musepack, AAC, and Monkey's Audio files.



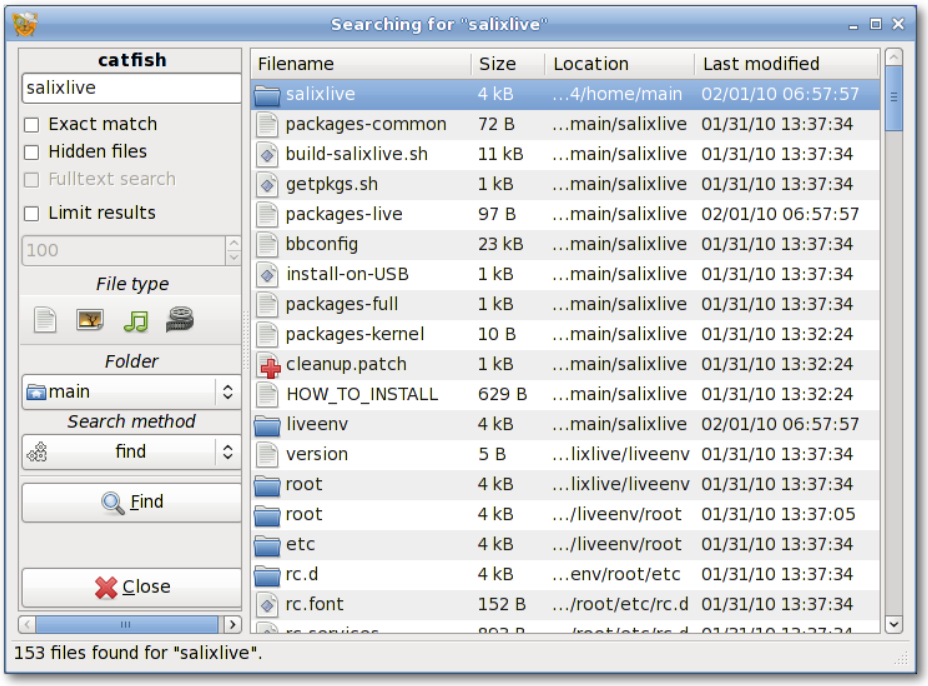
Brasero

Brasero is an application to burn CD/DVD. It is designed to be as simple as possible and has some unique features to enable users to create their discs easily and quickly.



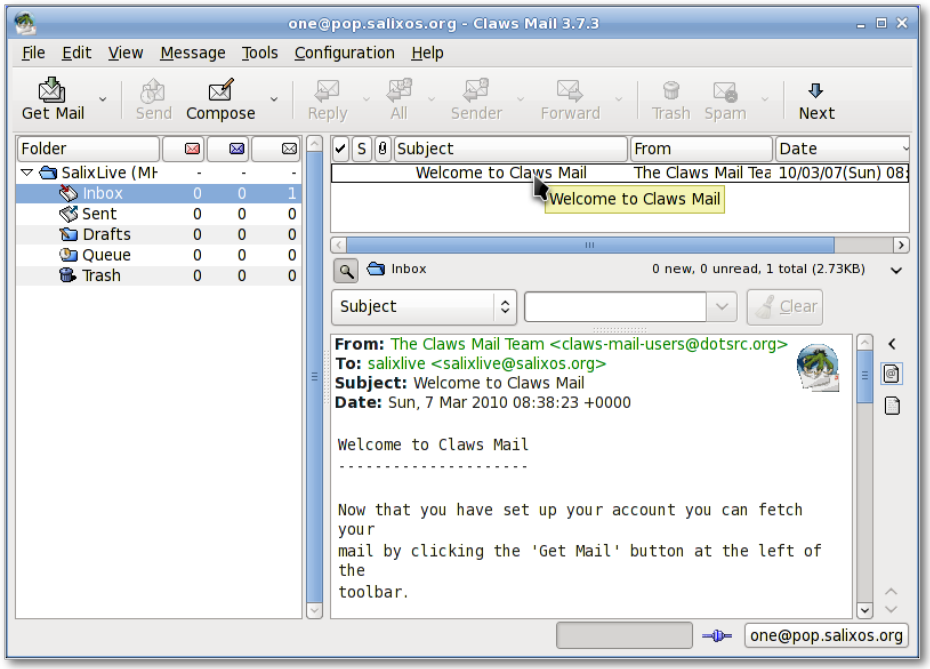
Catfish

Catfish is a handy file searching tool which provides a unified, lightweight and simple interface for different search engines such as find, (s)locate, doodle, tracker and beagle.



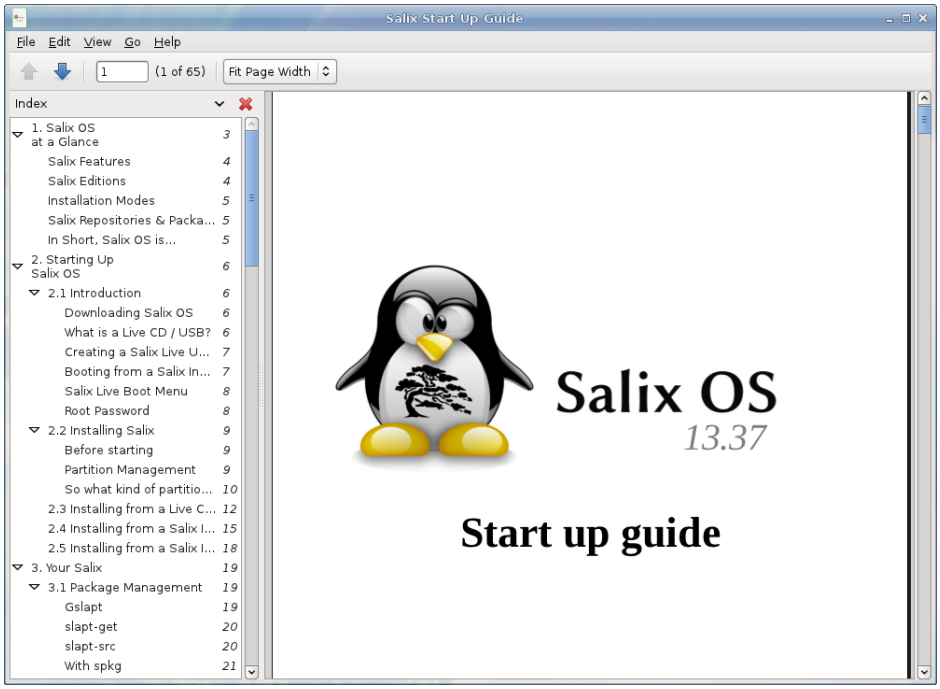
Claws-mail

Claws Mail is an open source email and news client. It offers easy configuration and an abundance of features. It stores mail in the MH mailbox format as well as the Mbox mailbox format via a plugin.



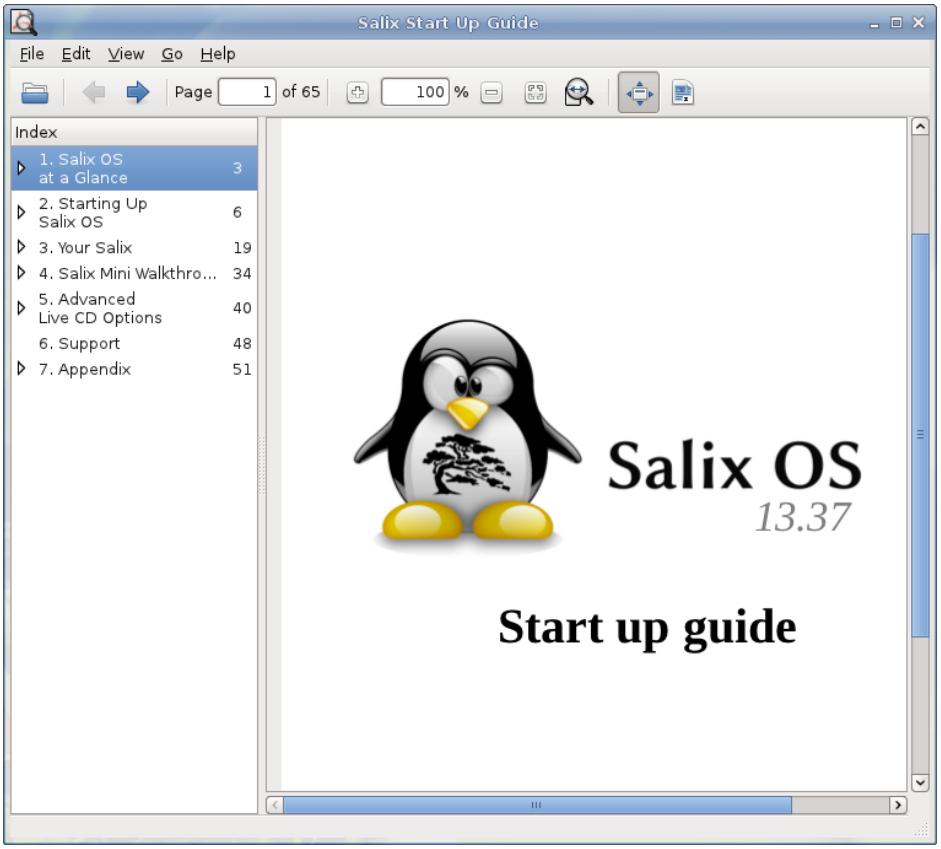
Document Viewer (Atril)

Document Viewer is a very lightweight, simple PDF document viewer.



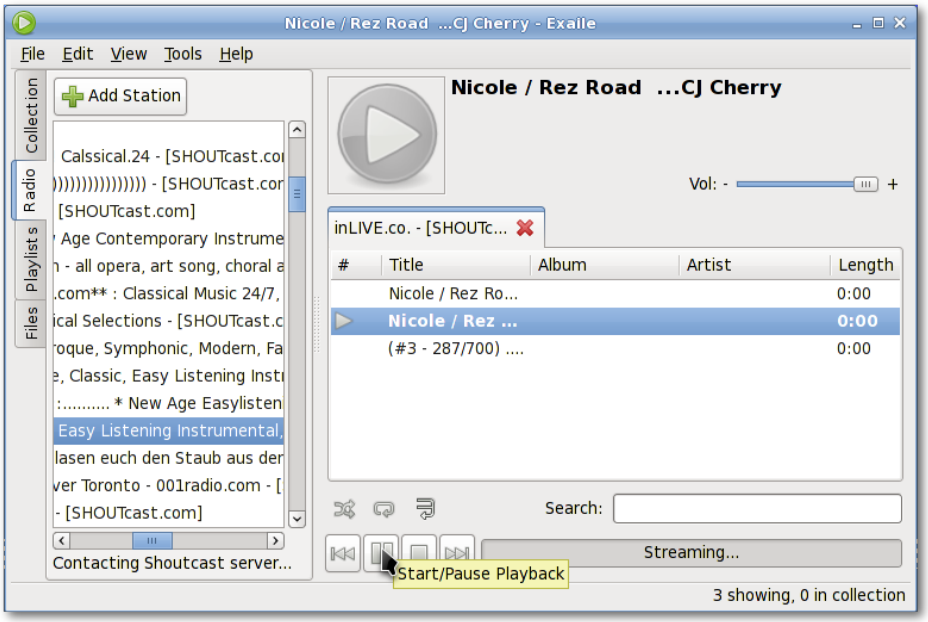
ePDFview

ePDFView is a lightweight PDF document viewer that only uses the GTK+ and Poppler libraries. It opens PDF files, save copies of documents, and has support for printing using CUPS.



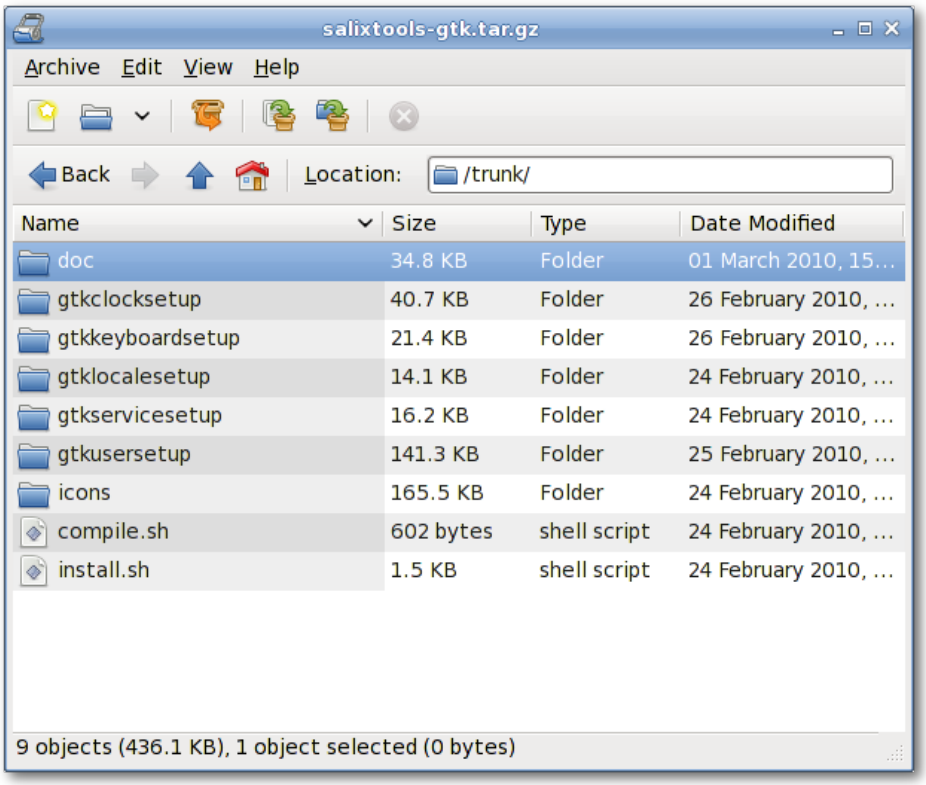
Exaile

Exaile is a music manager which incorporates automatic fetching of album art, lyrics fetching, Last.fm scrobbling, support for many portable media players, Internet radio such as Shoutcast, tabbed playlists, etc.



Engrampa

Engrampa is an archive manager. Supported archive types include gzip, bzip, bzip2, compress, lzop, zip, jar, lha, rar, zoo, arj, 7-zip, etc.



Firefox

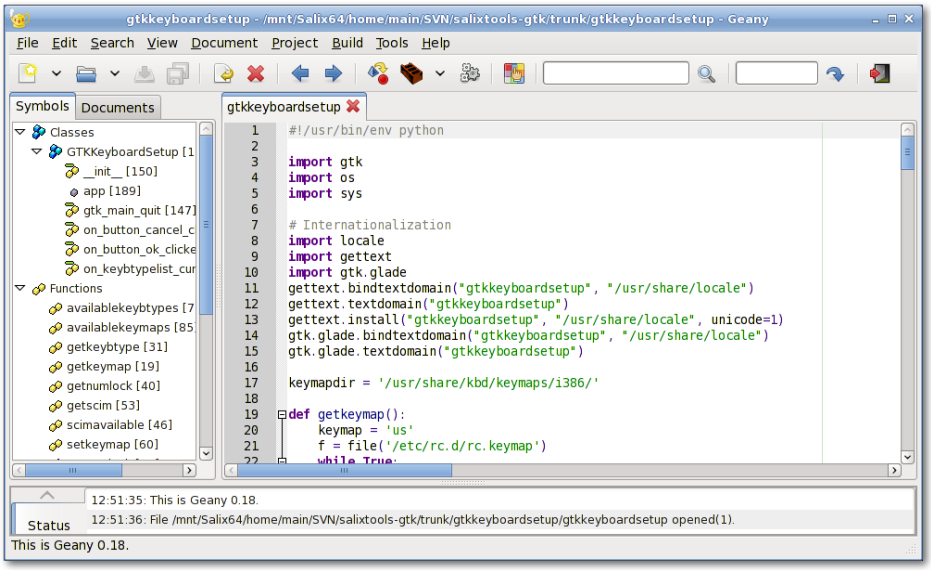
Mozilla Firefox is a free and open source web browser with tabbed browsing, spell checking, incremental find, private browsing and numerous plugins.

Galculator

Galculator is a calculator featuring two user modes: basic and scientific mode. Basic mode is intended for simple computations while Scientific Mode is Galculator's state of the art.

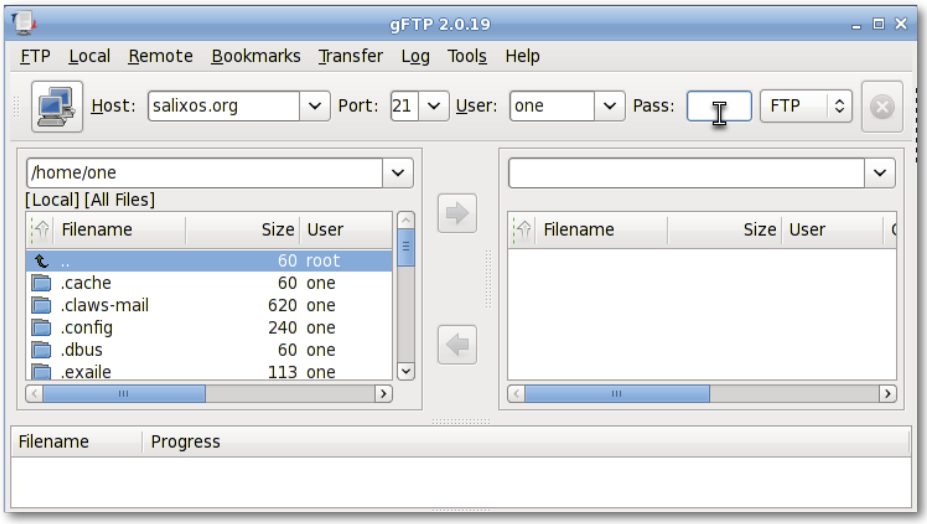
Geany

Geany is a small and lightweight Integrated Development Environment which only has a few dependencies and is independent of any particular Desktop Environment.



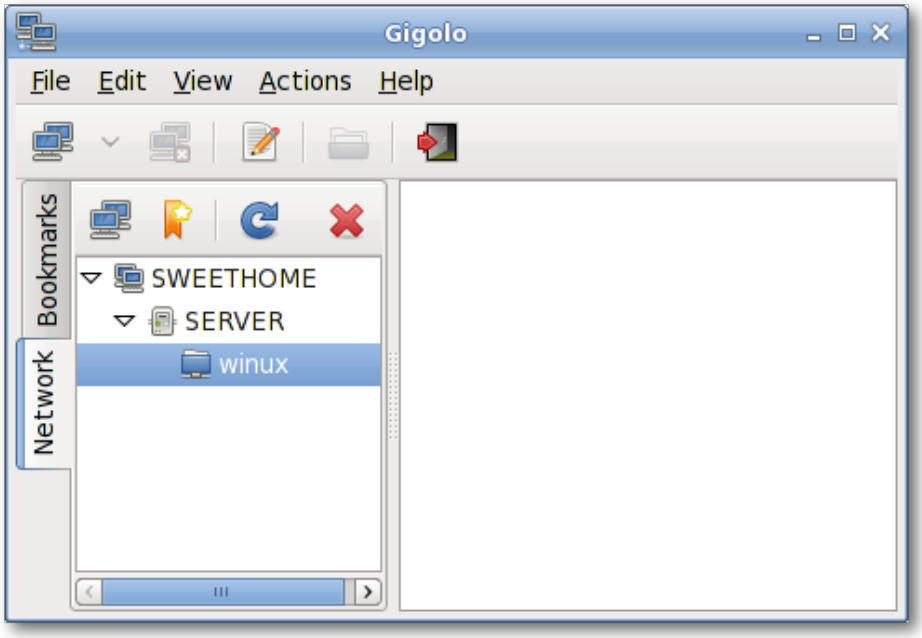
gFTP

gFTP is an FTP client with both a text and a GUI interface. gFTP aims to be simple to use yet powerful.



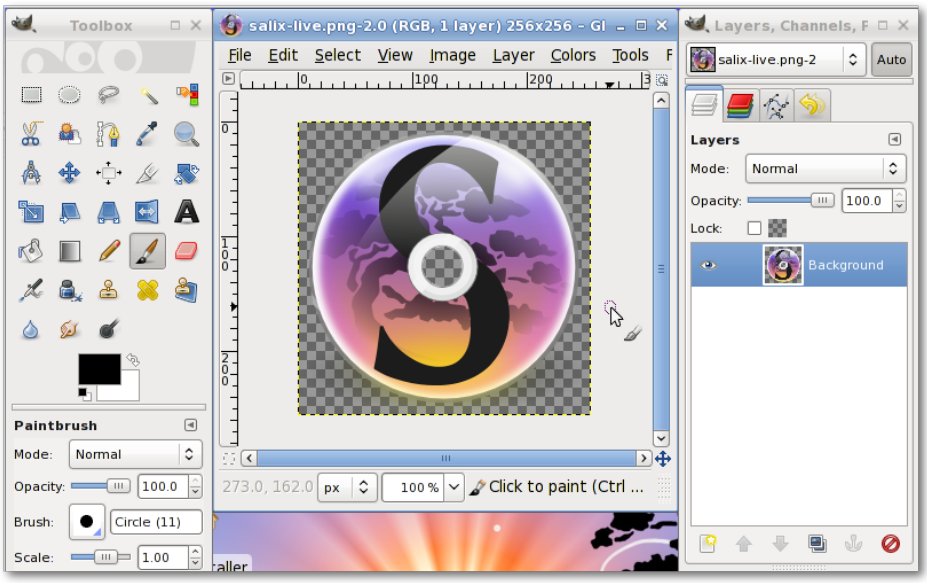
Gigolo

Gigolo is a frontend to easily manage connections to remote filesystems using GIO/GVfs. It allows you to quickly connect/mount a remote filesystem and browse local networks shares.



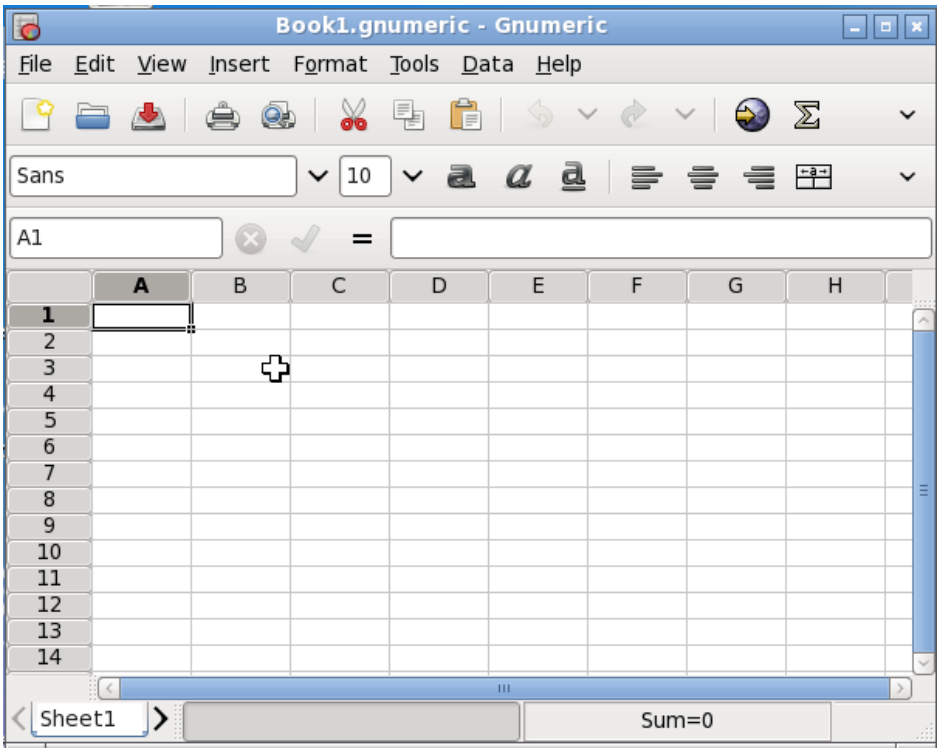
Gimp

GIMP (GNU Image Manipulation Program) is an image retouching and editing tool. In addition to offering free-form drawing, it can accomplish essential image workflow steps such as resizing, editing, and cropping photos, combining multiple images, converting between different image formats as well as create basic animated images in GIF.



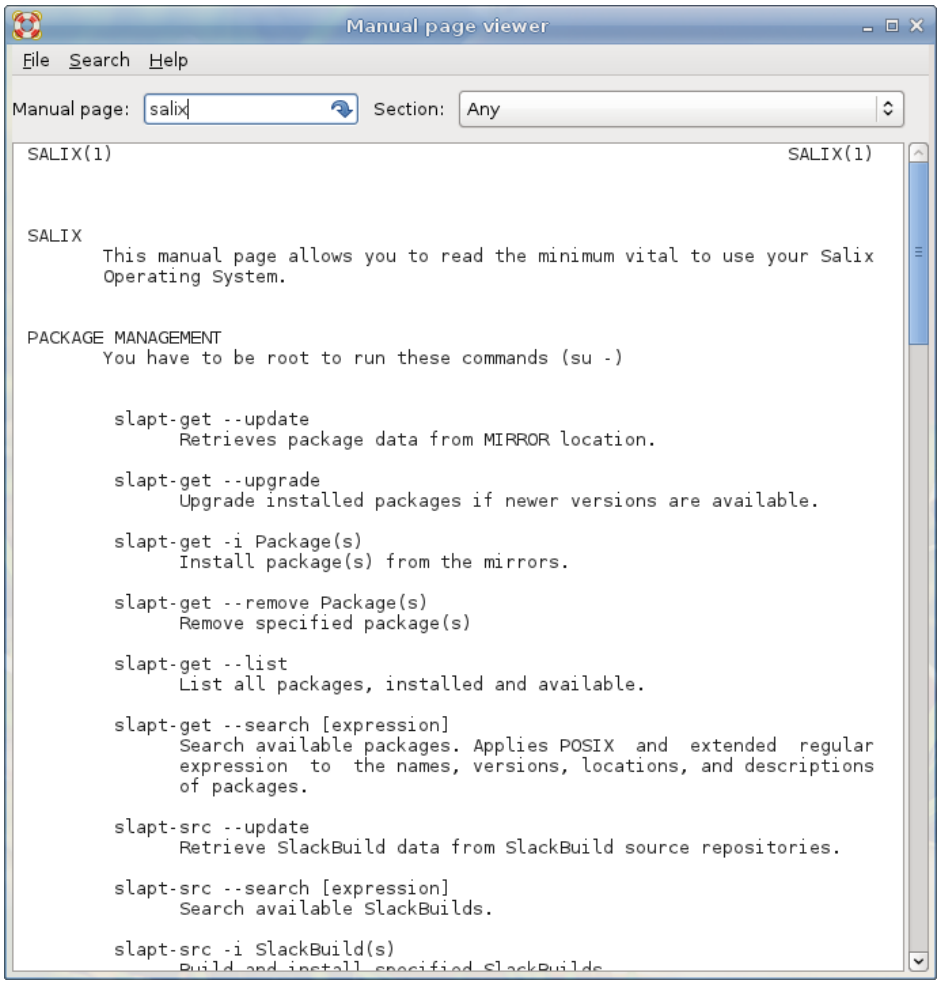
Gnumeric

The goal of Gnumeric is to be the best possible spreadsheet. While not attempting to clone existing applications, Gnumeric can, however, read files saved with other spreadsheets and offers a customizable feel that attempts to minimize the costs of transition.



Gtkman

GTKMan is a simple manual page viewer. Manual pages are viewed by specifying their name and optionally the section they are in, just as with the original man command. The manual pages are displayed in simple text form using the default system monospace font.



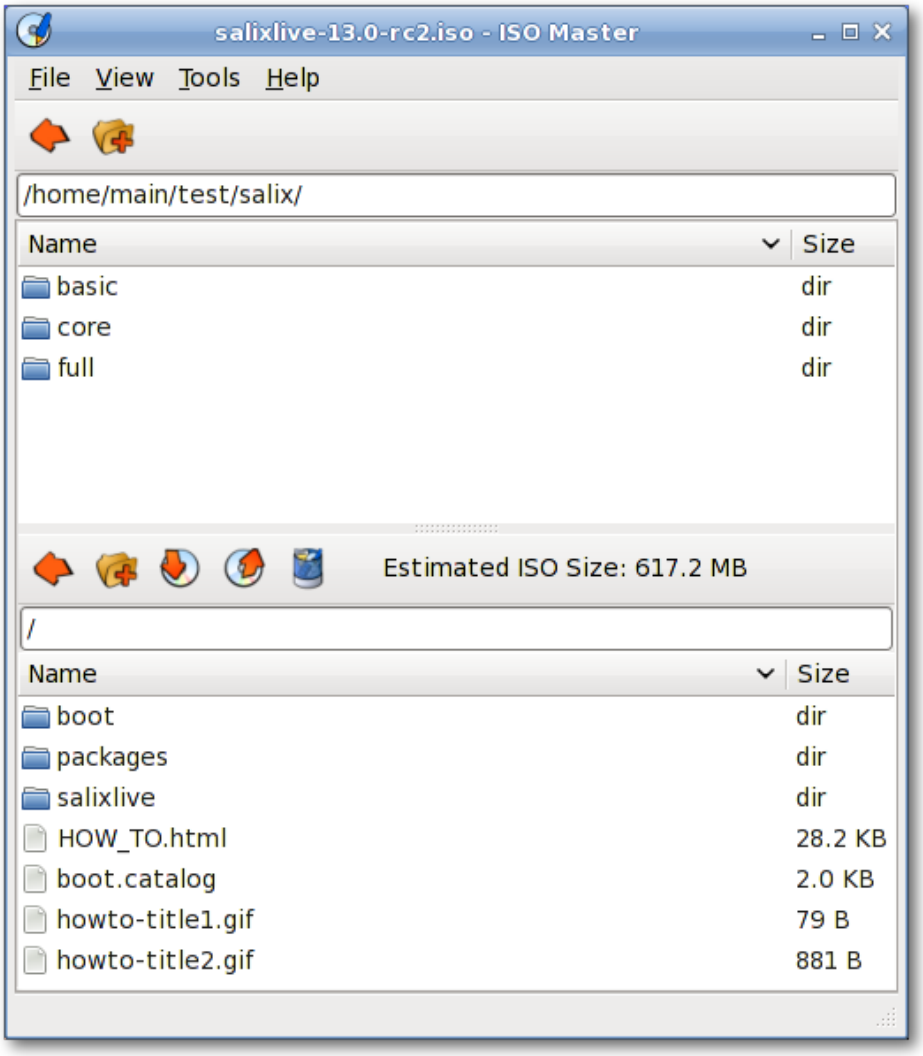
Ibus

Ibus is a new generation of input method editors after SCIM. It supports for more than thirty languages (Chinese, Japanese, Korean and other languages) in both qt and non-qt environments. (You may have to go to qtconfig and select "ibus" instead of "xim" in "Interface"

```
-> "Default Input Method").
```

ISO Master

ISO Master is an application for creating and modifying ISO9660 files (ISO images). Its functionalities include: creating an ISO image from scratch, adding or removing files and directories to/from a CD image, and creating bootable CDs using various boot record types.



Leafpad

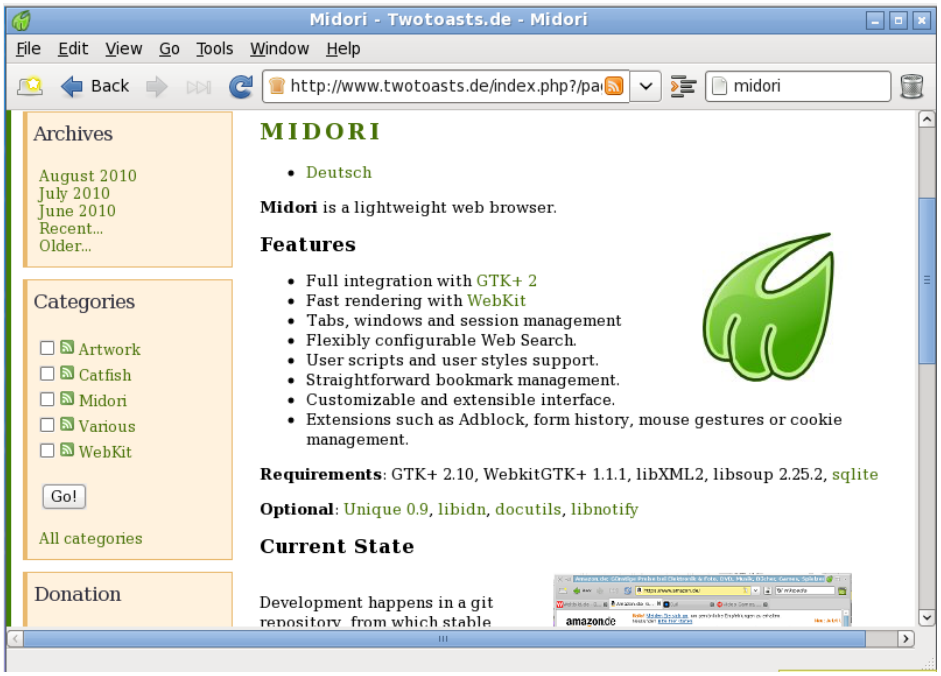
Leafpad is a very light simple text editor with printing support.

Meld

Meld is a visual diff and merge tool. You can compare two or three files and edit them in place (diffs update dynamically). You can compare two or three folders and launch file comparisons. You can browse and view a working copy from popular version control systems such as CVS, Subversion, Bazaar-ng and Mercurial.

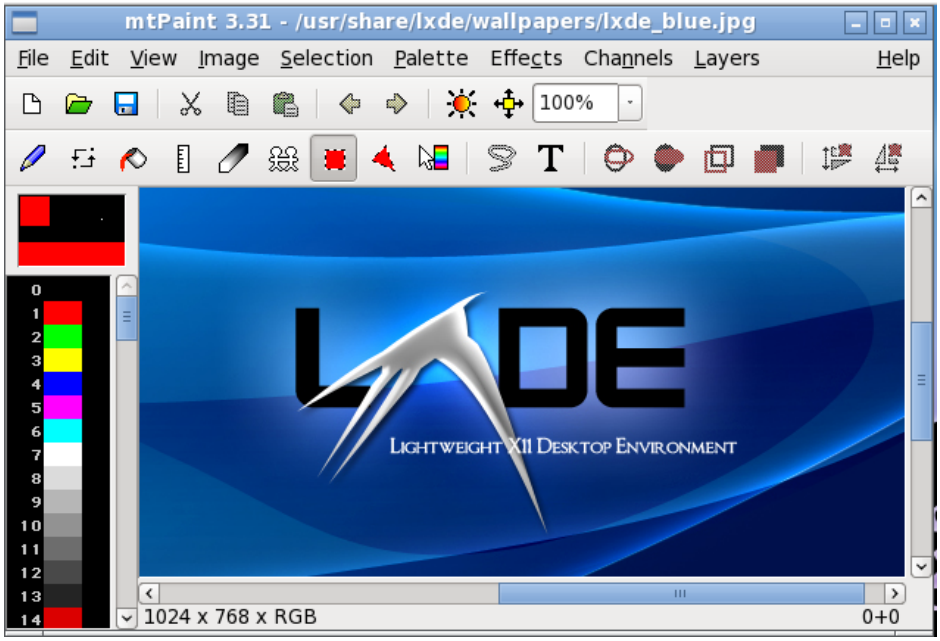
Midori

Midori (Japanese for green) is a web browser that aims to be lightweight and fast. It uses the WebKit rendering engine.



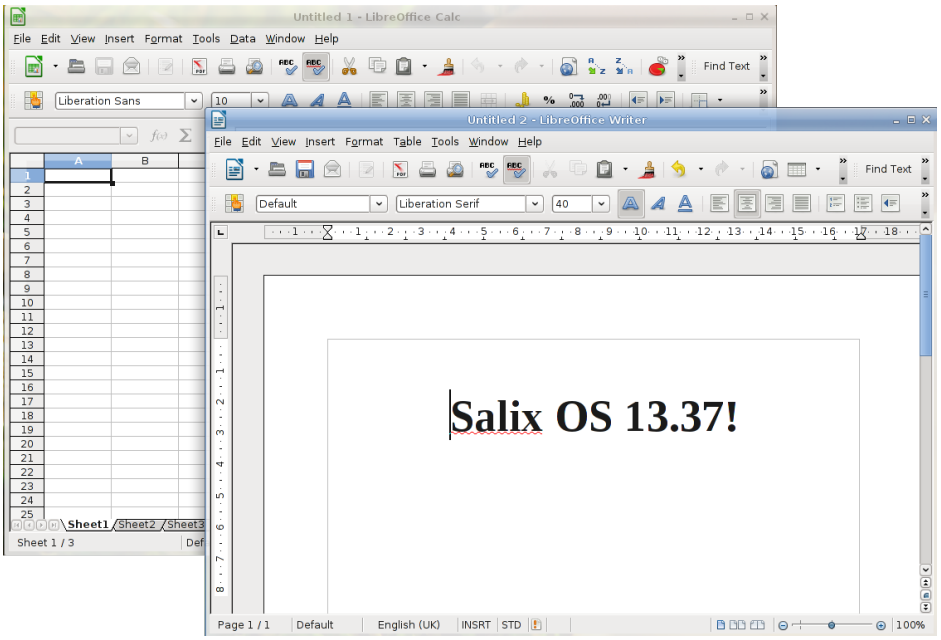
mtPaint

mtPaint is a painting program designed to easily create pixel art and manipulate digital photos. Due to its efficient design it can run on older PC hardware (e.g. a 200MHz CPU and 16MB of free RAM).



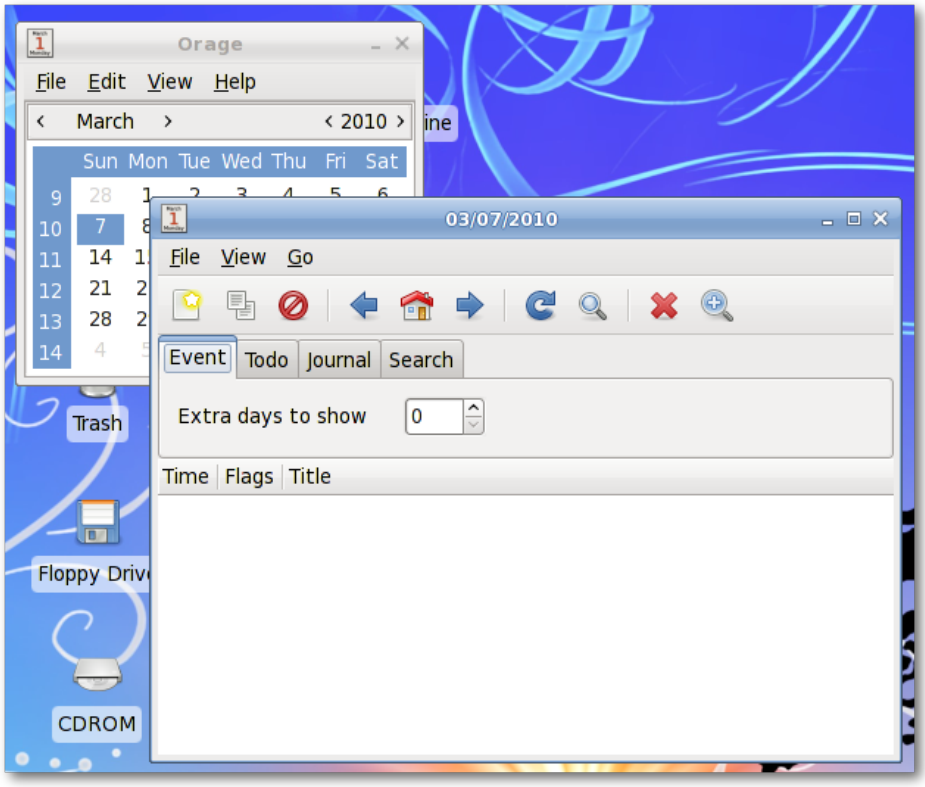
LibreOffice

LibreOffice is the leading open-source office software suite for word processing, spreadsheets, presentations, graphics, databases and more. It is available in many languages and works on all common computers. It stores all your data in an international open standard format and can also read and write files from other common office software packages.



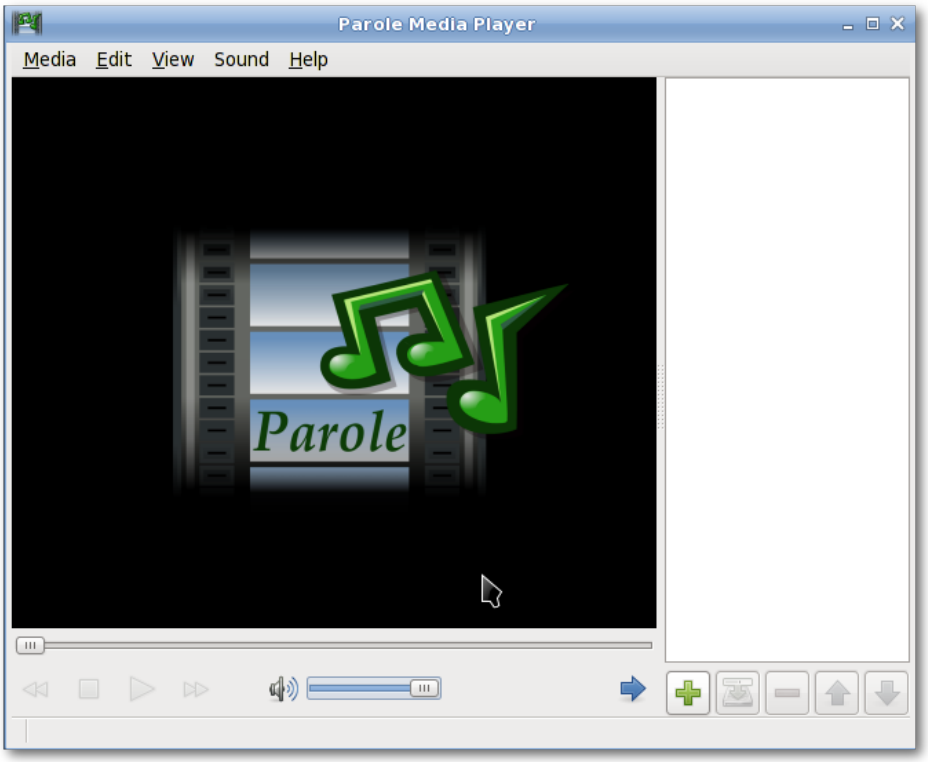
Orage

Orage provides a calendar which integrates nicely into the Xfce Desktop Environment. It is highly configurable and supports alerts based on dates. It warns you with pop-up or audible alarms. As it is an application for everyday use, it launches itself in the background and can be accessed using the Orage Clock plugin for the panel. Simply click on a date to display or set the agenda for the day.



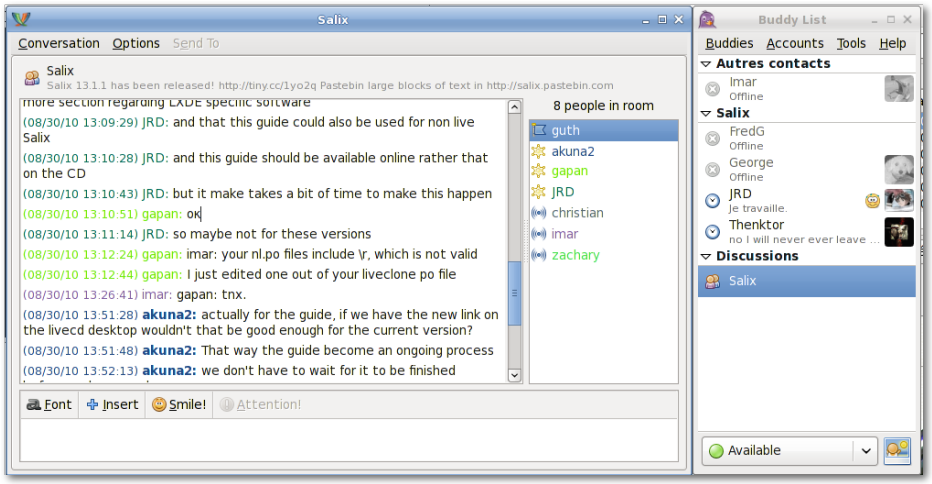
Parole Media Player

Parole Media Player is a media player (audio and video) which utilizes the GStreamer framework for playback.



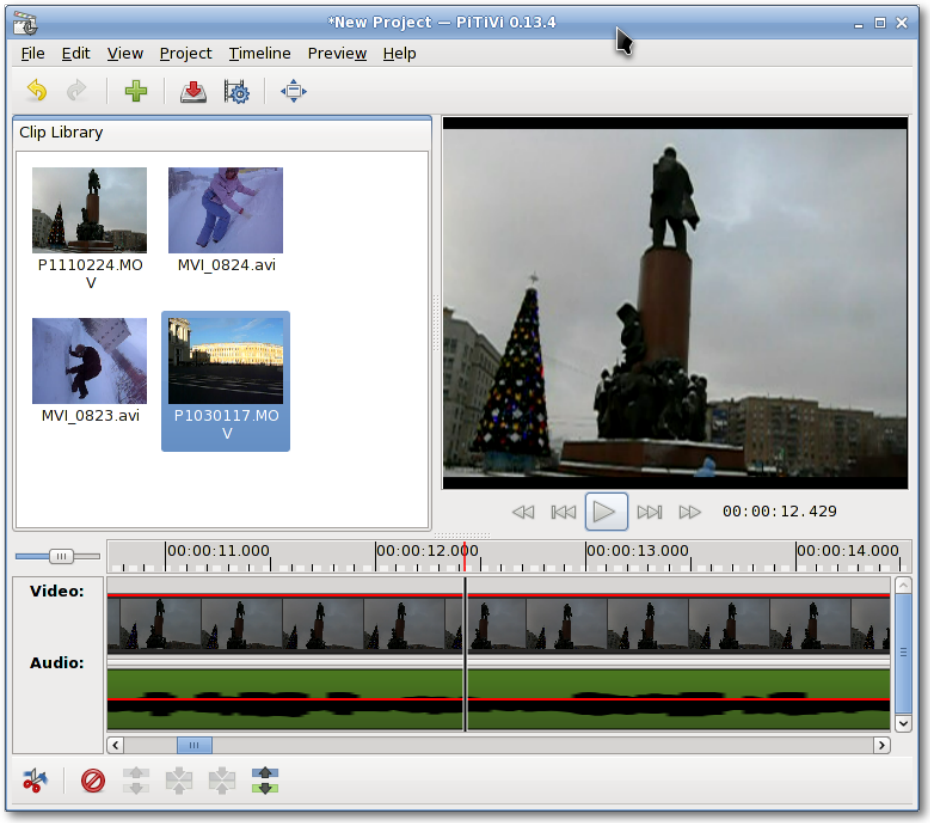
Pidgin

Pidgin is an easy to use and free chat client which lets you log in to accounts on multiple chat networks simultaneously. Pidgin is compatible with numerous chat networks out of the box: AIM, ICQ, Google Talk, Jabber/XMPP, MSN Messenger, Yahoo, etc.



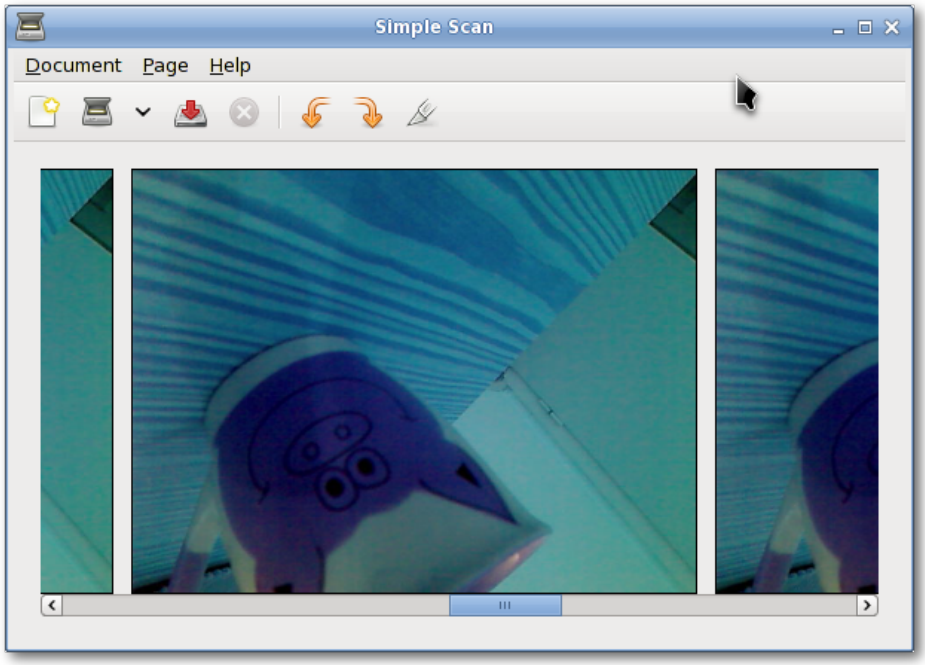
PiTiVi Video Editor

PiTiVi is an easy to use video editor. The interface is intuitive to most users. Just by dragging your video clips, you can create your own film clips.



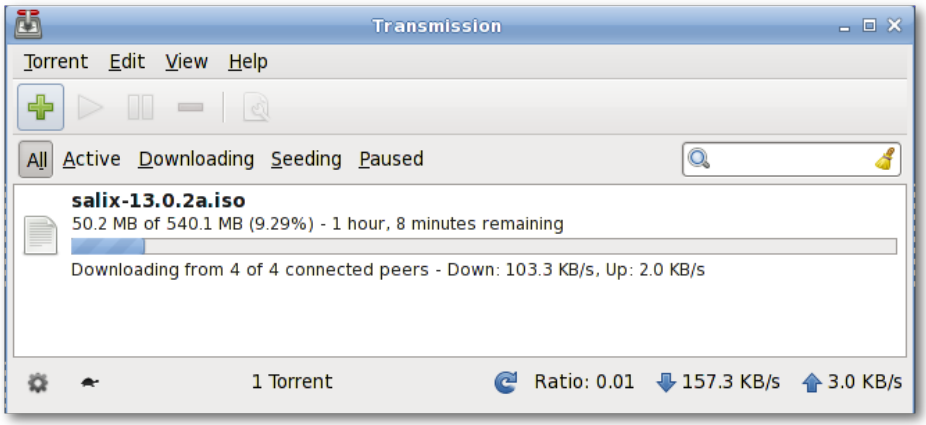
Simple Scan

Simple Scan allows you to scan your documents/photos with your scanner or even with your webcam!



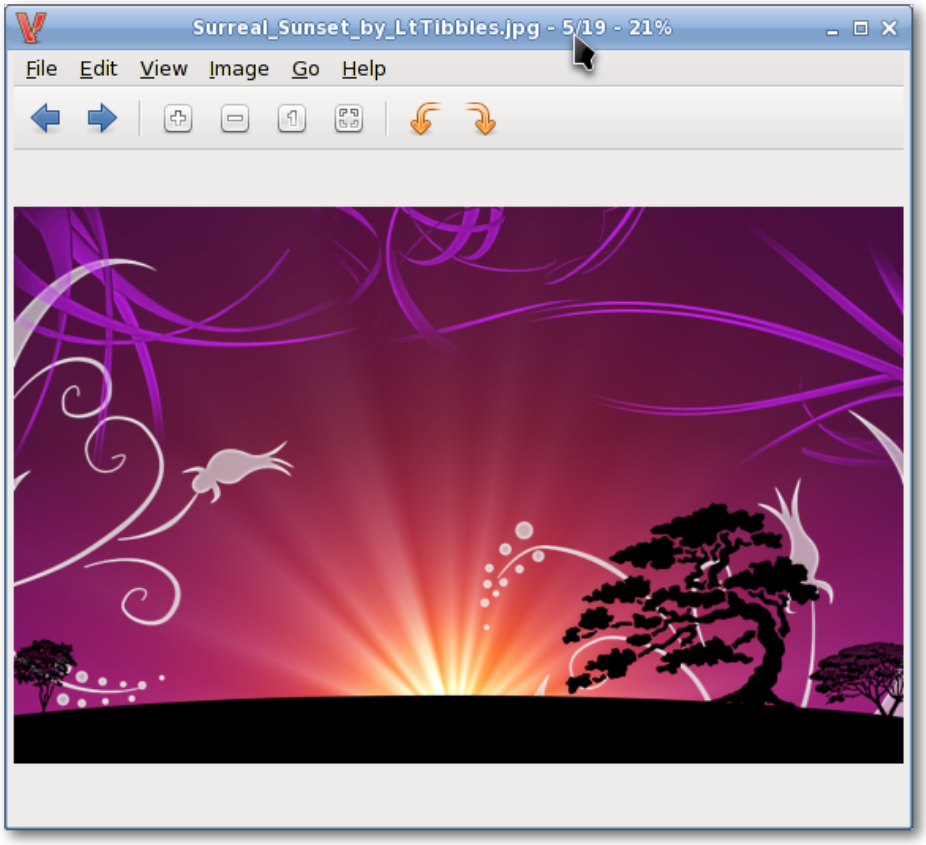
Transmission

Transmission is a BitTorrent client that is simple, lightweight and powerful.



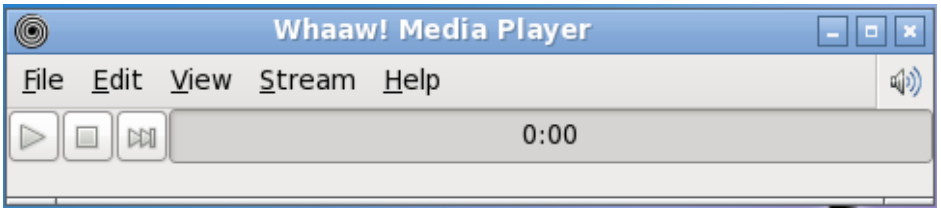
Viewnior

Viewnior is a fast and lightweight picture viewer.



Whaaw! MediaPlayer

Whaaw! Media Player will play any audio/video files which GStreamer can manage. It supports full-screen mode, seeking, changing video color settings and more. It is intended to be a basic media player with few dependencies.



Zim

Zim is a bit of everything. In essence, it is a desktop wiki, and it allows you a great deal of flexibility regarding what you can do with it. For instance, one can use it to keep track of TODO lists of ideas, to take notes in a meeting, as a drafting tool for blog entries, emails and so on.