Sonar GNU/Linux Getting Started Guide

Sonar Gnome 2014.1

Getting Started Guide

SONAR
GNU/LINUX

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Welcome

Congratulations! You've made the switch from a Windows PC to Sonar GNU/Linux. Some differences exist between Sonar GNU/Linux and proprietary operating systems, and you may encounter a small learning curve. Whether you are new to Linux or switching from Windows, this guide will help you get the most from your Sonar computer.

About Sonar GNU/Linux

Sonar GNU/Linux (Sonar) is software for your computer – an operating system. It is unlike the operating systems that come pre-installed on other computers, like OSX from Apple, Windows from Microsoft or Chrome from Google. Sonar is focused on providing assistive technology. If you need an accessible operating system that features top-notch assistive technology, you have come to the right place. Your search is over. Sonar is the perfect fit for you. If you don't need assistive technology, don't feel left behind. Sonar is a fully functional distribution of GNU/Linux that will work for you, too!

Sonar is a modern and secure operating system that offers many amazing features, and technology with unparalleled quality. It uses free assistive technology to make it the most accessible operating system available today. Sonar offers the following adaptive technology, pre-installed:

1.   A screen reader for blind and low vision people.

2.   A magnification program to help magnify the screen for low vision people.

3.   An on-screen keyboard for people who have low motor skills and experience difficulty using a keyboard. The on-screen keyboard can be used with a mouse or trackball to navigate the keyboard on the screen.

4.   A font called OpenDyslexic, that is designed to increase the readability of on-screen and printed text for readers with dyslexia.

What is "GNU" anyway?

Sonar is a version (a "distribution") of GNU/Linux. Although "GNU" is a critical part of the operating system, it is frequently omitted in common conversation. As a result, Sonar GNU/Linux is most often referred to a "Sonar Linux", or even more simply as "Sonar." Throughout this document, we'll use all three versions interchangeably.

You may have heard that Linux is an open source alternative to operating systems like Windows, and that it is the basis of Google's Android and Chrome operating systems. On the other hand, "GNU" may be an unfamiliar term. In fact the operating system commonly called "Linux" is more properly called "GNU/Linux" because without the GNU tools that allow the Linux kernel to interact with the you, your computer wouldn't do much. If you want to learn more about the GNU project and software freedom, you can find more information on the project's website at https://www.gnu.org.

Translating from Windows to Sonar Linux

You've made the switch from Windows to Sonar Linux, and now that you're here, you might be feeling a bit lost. We've assembled this chart to make it easy for you to find the feature you're looking for, whether it's your printer settings, audio controls, or where all your files are located.

If you used this in Windows...	look here in Sonar...	Additional tips
Audio Controls	Sound	Status menu > Settings button > Sound
Documents Folder	Home Folder	The home folder is where you put everything you create. Documents, audio files, video files, and more.
File Explorer	File Manager	Sonar's file manager is a powerful tool for managing and searching for files in your computer.
Microsoft Word	LibreOffice Writer	LibreOffice Writer is a word processor that can create, open and save documents that you can share with anyone using Microsoft Word.
Network and Sharing	Network	Status menu > Settings button > Network
Notepad	Text Editor	Gedit is the name of the text editor in Sonar.
Printers and Faxes	Printers	Status menu > Settings button > Printers
Recycle Bin	Trash	Trash is a little less "politically correct" but you can still recycle its contents if you need to recover something you've thrown away.
Jaws Screen Reader	Orca Screen Reader	Orca is a free, open source, flexible, and extensible screen reader that provides access to Sonar's graphical desktop via speech and/or braille.
iTunes	Rhythmbox	Listen to music, podcasts, Internet radio and more. You can even transfer the files to your MP3 player for mobile listening.

Accessibility

The pre-installed accessibility features of Sonar Linux are what sets it apart from any other computer operating system. In fact, if you installed Sonar on your own, you will already know that even during the installation process, the Orca screen reader is active and assisting you, right from the start!

Screen Reader

The Orca screen reader is provided for blind and low vision users. The screen reader in Sonar is "on" by default. To turn the screen reader off or on again, press **Alt**+**Super**+**S**. (The "Super" key may be labeled with the "Windows" icon on your keyboard.)

Screen Magnification

A magnification program is provided to help magnify the screen for low vision people. To turn on screen magnification, press **Alt**+**Super**+**M**. To zoom in, press **Alt**+**Super**+**+** (plus key). To zoom out, press **Alt**+**Super**+**-** (minus key).

On-Screen Keyboard

An on-screen keyboard is ready to go for people who have low motor skills and experience difficulty using a keyboard. The on-screen keyboard can be used with a mouse or trackball to navigate the keyboard on the screen. To turn the on-screen keyboard on or off, press **Alt**+**Super**+**K**. To increase text size press **Alt**+**Super**+**L** and to decrease text size, press **Alt**+**Super**+**D**.

Head and Eye-Tracking Software

If your computer has a camera installed, or if you add one, you can use it to control the mouse cursor. In combination with the on-screen keyboard, this will allow people with low motor skills to navigate the software, and use the keyboard as well.

OpenDyslexic Font

Sonar Linux comes with the OpenDyslexic font pre-installed. OpenDyslexic is designed to increase the readability of on-screen and printed text for readers with dyslexia.

In the documentation for OpenDyslexic, the author explains, "Your brain can sometimes do funny things to letters. OpenDyslexic tries to help prevent some of these things from happening. Letters have heavy weighted bottoms to provide an indication of orientation to make it more difficult to confuse with other similar letters. Consistently weighted bottoms can also help [reinforce] the line of text. The unique shapes of each letter can help prevent flipping and swapping. "

The font is available in any application that provides selectable fonts, like word processors and browsers. OpenDyslexic can even be chosen as the default system font in System Settings.

Introduction to Sonar's Desktop

Sonar Linux uses a popular Linux desktop environment named Gnome. When you first log in, you will see a desktop displaying icons like Home and Trash, and a bar across the top of the screen. This is the Gnome desktop environment. Gnome's top bar provides access to your windows and applications, your calendar and appointments, and is where you'll find adjustment settings for such things as sound, networking, power and accessibility features.

There are five components in the Sonar top bar. From left to right, they are, the Activities button, the Application menu, the Clock, the Accessibility menu and the Status menu. Each of these provides access to the settings and capabilities that will allow you to use your computer to its fullest. Let's start with an overview of each of these components.

Activities Button

The button on the far left of the top bar is the Activities button. Clicking this button shows you an overview of your windows and applications. The overview shows you live thumbnails of all the windows on the current workspace. While viewing the Overview, you can also just start typing to search your applications, files, folders and the web.
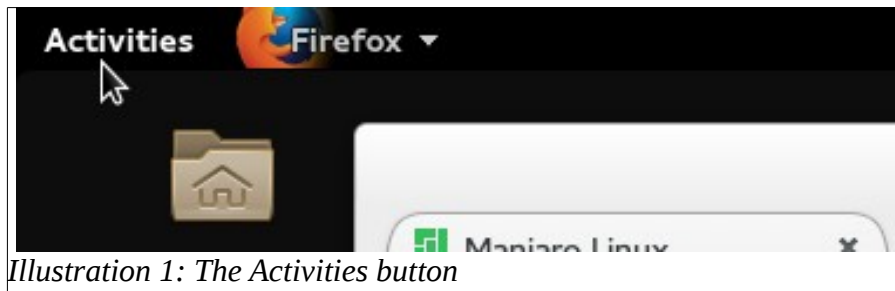
Illustration 1: The Activities button

On the left edge of the Overview screen, you will find a vertical region called the Dash. The Dash shows you your favorite applications and your running applications. Click any icon in the Dash to open that application. If the application is already running, the icon will be highlighted with a lighted region just below it. Clicking the icon of a running application will bring up the application's most recently used window. To open a new application window, or to display another window that is already open, you can right-click the icon.

The grid button at the bottom of the Dash displays the Applications Overview. This shows you all the applications installed on your computer. Click any application to run it. You can also drag an application onto the Dash to make it a favorite. Your favorite applications stay in the Dash even when they're not running, so you can get to them quickly.

Application Menu

The Application menu appears just to the right of the Activities menu if you have at least one application running. It displays the icon for the currently running active application and a list of actions that can be taken for that application. Note that the menu bar on the application window may contain additional menus and actions as well.

Clock

Sonar displays the day of the week and the time of day in the center of the top bar between the Application and Accessibility menus. The clock is actually a button that, when you click on it, displays a calendar and a menu that lets you adjust your computer's date and time settings. You can use these settings to change such things as the format of the date and time as it is displayed in the top bar.

Accessibility Menu

The Accessibilities menu displays a convenient list of the accessibility features and lets you turn each of them on or off with a single click.

Status Menu

The menu on the far right of the top bar is the Status menu. In the Status menu you can change the volume or screen brightness, edit your Wi-Fi connection, check your battery status, log out, switch users, and turn off your computer. The three buttons at the bottom of the menu, from left to right, allow you to launch the System Settings application, to lock the screen, and to log out/switch users/shutdown.

Illustration 2: The Accessibility menu

Illustration 3: The Status menu

Using Accessibility Applications

Setting Keyboard Shortcuts On the Gnome Desktop

Although keyboard shortcuts are technically not part of the Accessibility menu, they can be very helpful as assistive technology. Sonar doesn't set a lot of shortcuts for the user. We leave that up to each person that uses Sonar. There are, however, an extensive number of keyboard shortcuts you can set for yourself. If you would like to take a look at your own keyboard shortcuts you can press the **Super** key to reveal the Overview, then type "settings".

1. Next. locate the Settings option an press **Enter**.

2. Use the arrow keys to locate the Keyboard option and press **Enter**. Now you will have the Keyboard Settings menu open.

3. First you will be on the Typing tab, which allows you to change available options for typing. Press the right arrow key to move to the Shortcuts tab.

From here you can set what shortcuts you want for your sound and media. You can also set shortcuts for moving your windows around and other system navigations. In addition, you can set shortcuts for such things as launchers and taking screen shots. Follow the prompts at the bottom of the Keyboard Settings window to make your changes.

1. When you find a shortcut you want to set, locate and highlight the action, and press **Enter**.

2. Press the key combination for the shortcut. Your new keyboard shortcut is now set and active.

Remember that the "Super" key is also known as the "Windows" key. The **Alt**+**Super**+**M** notation indicates that you should press and hold the **Alt** key and the **Super** key at the same time, then the letter "M" so that all three keys are pressed simultaneously.

Some of the accessibility keyboard shortcuts that are already provided for you in Sonar are:

- Turn screen reader on or off: **Alt**+**Super**+**S**

- Turn magnification on or off: **Alt**+**Super**+**M**

- Zoom in: **Alt**+**Super**+**+** (plus key)

- Zoom out: **Alt**+**Super**+**-** (minus key)

- Turn on-screen keyboard on or off: **Alt**+**Super**+**K**

- Increase text size: **Alt**+**Super**+**L**

- Decrease text size: **Alt**+**Super**+**D**

- Turn high contrast on or off: **Alt**+**Super**+**H**

Using the Orca Screen Reader

Orca is a free, open source, flexible, and extensible screen reader that provides you with access to the graphical desktop via user-customizable combinations of speech and/or braille. The Orca screen reader in Sonar is "on" by default. To turn the screen reader off or on again, press **Alt**+**Super**+**S**.

For complete information about using and configuring the Orca screen reader, refer to the website https://help.gnome.org/users/orca/stable/.

Note: The Orca documentation on the website occasionally refers to the "Orca Modifier" key. The key that Orca uses by default as the "Orca Modifier" depends on whether you are using Orca's Laptop keyboard layout or its Desktop keyboard layout:

- If you are using the Laptop layout, the default **Orca Modifier** will be **CapsLock**.

- If you are using the Desktop layout, for the **Orca Modifier** you can use either the normal **Insert** key or the **KeyPad Insert**. **KeyPad Insert** is the same key as the **0** (zero) on the numeric keypad.

You can use the "Orca Modifier" key to get some help. Press **Orca Modifier**+**H** to enter "learn mode".

- To view Orca's documentation, press **F1**.

- To hear a list of Orca's shortcuts, press **F2**.

- To hear a list of Orca's shortcuts for the current application, press **F3**.

To learn more about how to use Orca to read documents and websites, the documentation is available on the website: https://help.gnome.org/users/orca/stable/#reading.

You may find that the screen reader speaks too slowly or too quickly for you. You can adjust the rate at which Orca speaks, and make other adjustments as well, in Orca Preferences. To get to the Orca Preferences screens, press **Orca Modifier**+**Spacebar**. If you find yourself needing to adjust the speed frequently, you might want to bind (map) the "increase the rate" and "decrease the rate" commands to specific keys. That way you can more easily make these adjustments. To review (and setup) the keyboard shortcuts and commands that Orca uses, you will want to refer to the documentation on key bindings at this site: https://help.gnome.org/users/orca/stable/howto_key_bindings.html.en.

This is just a small sampling of the documentation that is available to you on the Orca site. Browse around. Discover what this powerful tool can do.

Using Sonar's Screen Magnifier

If you are a low vision user and you require screen magnification, Sonar has magnification already built in. To turn on or off screen magnification, press **Alt**+**Super**+**M**. You can also turn on screen magnification in the Accessibility menu on the top bar if you prefer that method.

Once you have the magnification turned on you can zoom in by pressing **Alt**+**Super** and the plus (+) sign. If you want to zoom out you can by pressing **Alt**+**Super** and the minus (-) sign. If you wish to change the keyboard shortcuts you can, by opening the Overview by pressing the **Super** key and then typing in "settings". From there you can go to the keyboard settings and change all of the keyboard shortcuts not only for the magnification but for all keyboard shortcuts.

Using the On-Screen Keyboard

Press **Alt**+**Super**+**K** to toggle the on-screen keyboard on and off. The on-screen keyboard is only visible when you need it. For example, when a text document is the active window and your cursor is in a position where you can type, you will see the on-screen keyboard. If you then click the Sonar desktop, or somewhere else that does not accept typed characters, the keyboard vanishes.
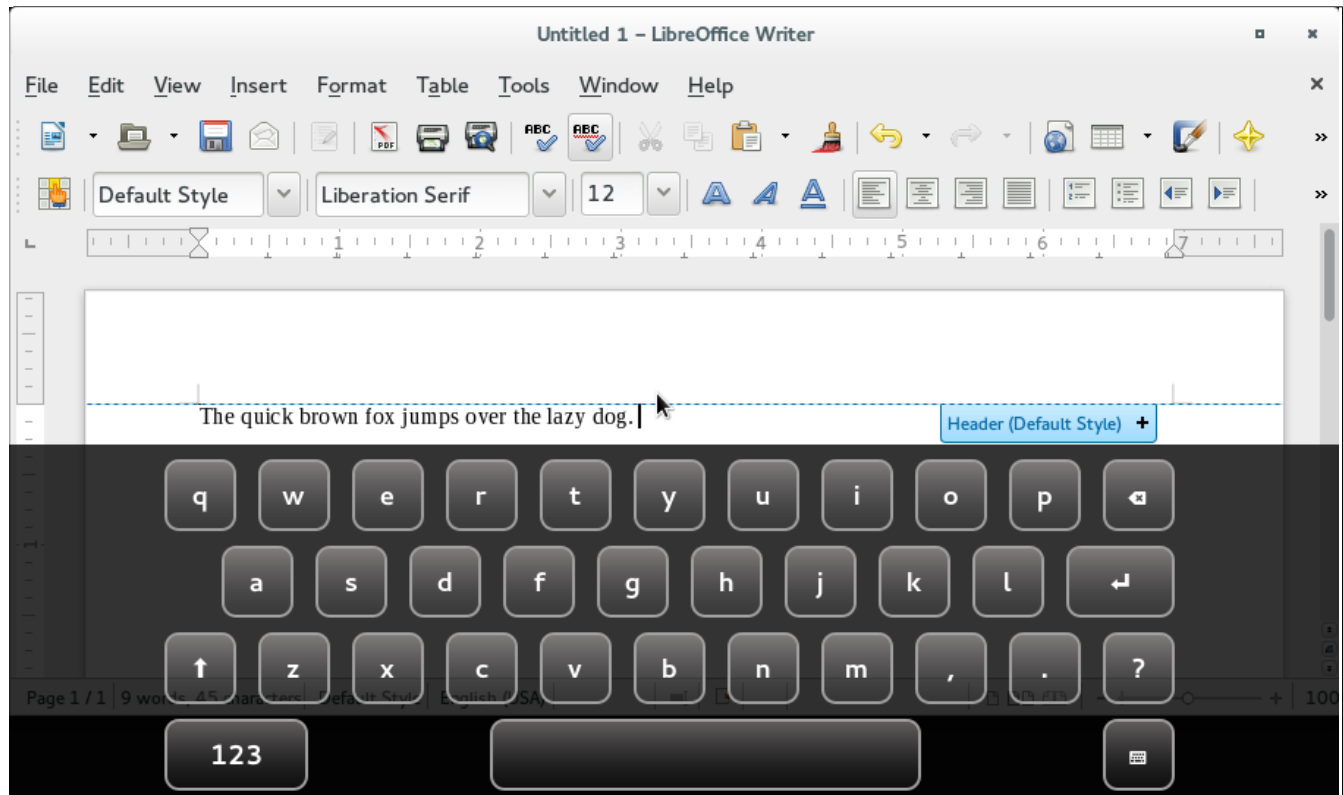

Illustration 4: The on-screen keyboard.

Using Head and Eye-Tracking Software

Enable Viacam (frequently abbreviated as eViacam) is mouse replacement software that moves the pointer as you move your head. If you have low motor skills, with nothing more than your webcam and eViacam you can easily use your computer. You don't need anything more than a webcam to use eViacam – no cables, no dots and no additional hardware is required.

With eViacam, you can control your computer with intuitive head movements. There is no need to use your hands! It's designed to eliminate the need for assistance after it's installed -- and remember, it's already installed with Sonar!

Make it your own. You can customize the pointer speed, motion acceleration and smoothness, dwelling time and more!

To learn how to use and configure eViacam, the user's manual is available within the software. It's also on-line at http://eviacam.sourceforge.net/help/en/contents.htm.

Using Applications

Now that you have Sonar installed you most likely want to know what applications are installed, and how to use them. If you would like to see a list of all your applications you can press **Super+A**. This will bring up a list of all the applications you have installed on your system. You can choose any application from this list and press enter or click on it to launch it. We won't cover all of the pre-installed applications here, but let's discuss some that will likely be most popular.

Web Browser

One of the first applications you might want to use is the web browser, Firefox. To open Firefox, press the **Super** key also known as the **Windows** key. This will bring up the Overview. You can also get there by clicking the Activities button as we described earlier. Now that the Overview is up, start to type "firefox" and it should automatically fill into the text box. Once you see it you can press **Enter** and Firefox will open. You can do the same thing with any installed application.

Now the Overview is pretty powerful. Not only can you search for applications by name, but you can also search by the function of the application. For example, type in something like "music" and Sonar will find any applications that you have installed that have anything to do with music. So you don't need to know the name of the program. Sonar will find it for you using the Overview. You can also search for files and folders, so you can just type the name of the file or folder and it will bring it up in the Overview. So really the Overview is Sonar's powerful search tool for your whole system.

Word Processor

You might want to create a simple document, compose a newsletter, or write a novel, then save your work in a file. A word processor is the perfect tool for this and Sonar already has one waiting for you to use. Sonar is pre-installed with the LibreOffice suite of applications that includes a word processor (Writer), a spreadsheet application (Calc), a program for creating professional presentations (Impress), a formula editor for scientific or school work (Math), and a database program for cataloging anything you want (Base).

As we have done before, start by opening the Overview by pressing the **Super** key. Start to type "word processor" or "writer" and the word processor application will be highlighted before you can finish typing! Press **Enter** to open LibreOffice Writer. Just like any other word processor you have ever used, you can type on the screen, change the font, format the text using bold, underline and italics, create tables, insert pictures and much, much more. Press the **Save** icon or **Control+S** to save your work, **Control+P** to print, and exit using **Control+Q**.

As with all operating systems, Sonar provides more than one way to accomplish each of these actions, and you will learn them over time. If you have switched to Sonar from Windows, you will adapt easily because most things work the same way they did on your old system.

Entertainment

If you took our suggestion earlier, you will already know that when you type "music" at the Overview, the application Rhythmbox appears. Rhythmbox is a multi-media powerhouse that rivals Apple's iTunes. Whether you want to listen to Last.fm, your collection of MP3 files, or you are looking to subscribe to your favorite Linux podcast, Rhythmbox gives you the ability to do all of that and more. You can listen right from your computer, or transfer your play lists to your mobile phone, tablet or media player, and listen on the go.

You'll find detailed instructions on how to adjust the preferences, view all of the settings, or read the manual, by clicking the Application menu. You remember. That's right next to the Activities button on Sonar's top panel. Just make sure Rhythmbox is open when you click. Play some tunes while you explore all of the other applications available to you in Sonar GNU/Linux!
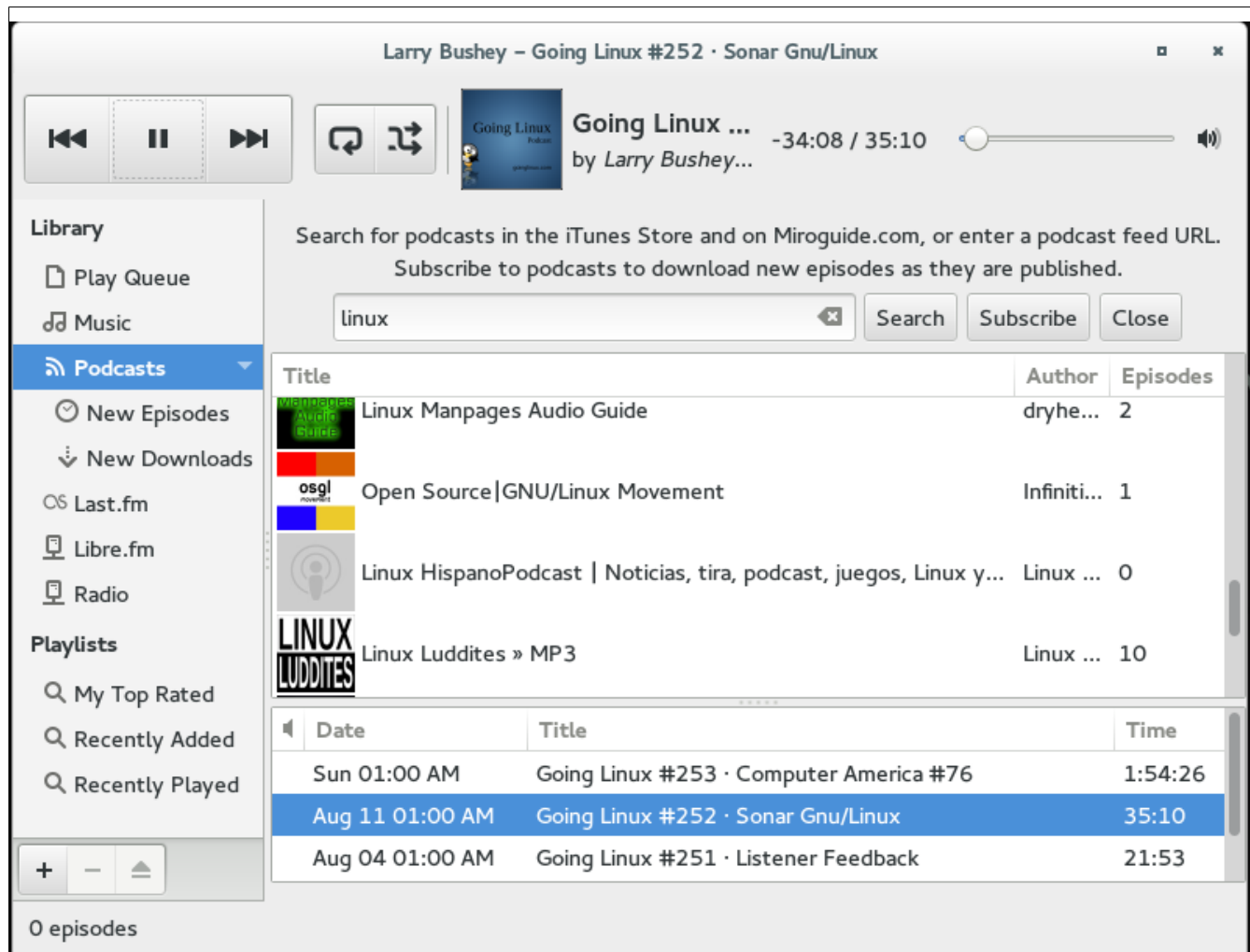

Illustration 5: The Rhythmbox media player

Staying Secure and Up To Date

Getting the Latest Updates

When updates are available for Sonar or any of its applications, the Update Manager displays a notification at the bottom of the screen.

The updates are free, and are available for download from the software repositories, also known as "repos." You use the Update Manager software to perform the updates.

Illustration 6: Update Manager Notification

1. Click the **Activities** button (or press the **Super** button) to open the Overview.

2. Type "software update" and press **Enter**. The Update Manager opens and pauses for a moment or two to contact the software repositories.

3. When the list has refreshed, if there are updates available, you simply click the **Apply** button and provide your Sonar password to start downloading all of the updates.

4. A progress bar keeps you informed as the download and installation proceeds.
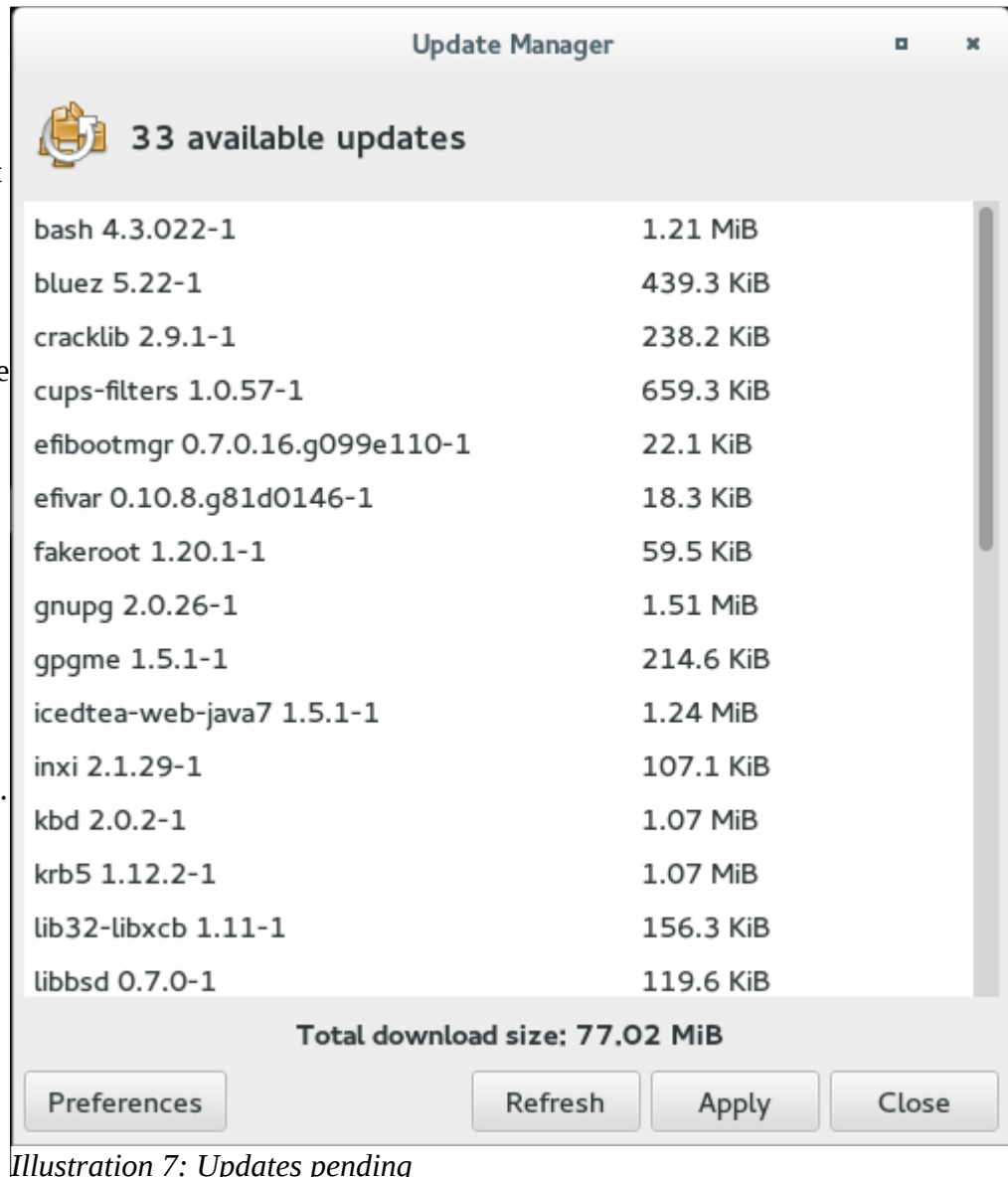
Illustration 7: Updates pending

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5.   When the process is complete, the window will display the message, "Transaction successfully finished." Click **Close** to continue.
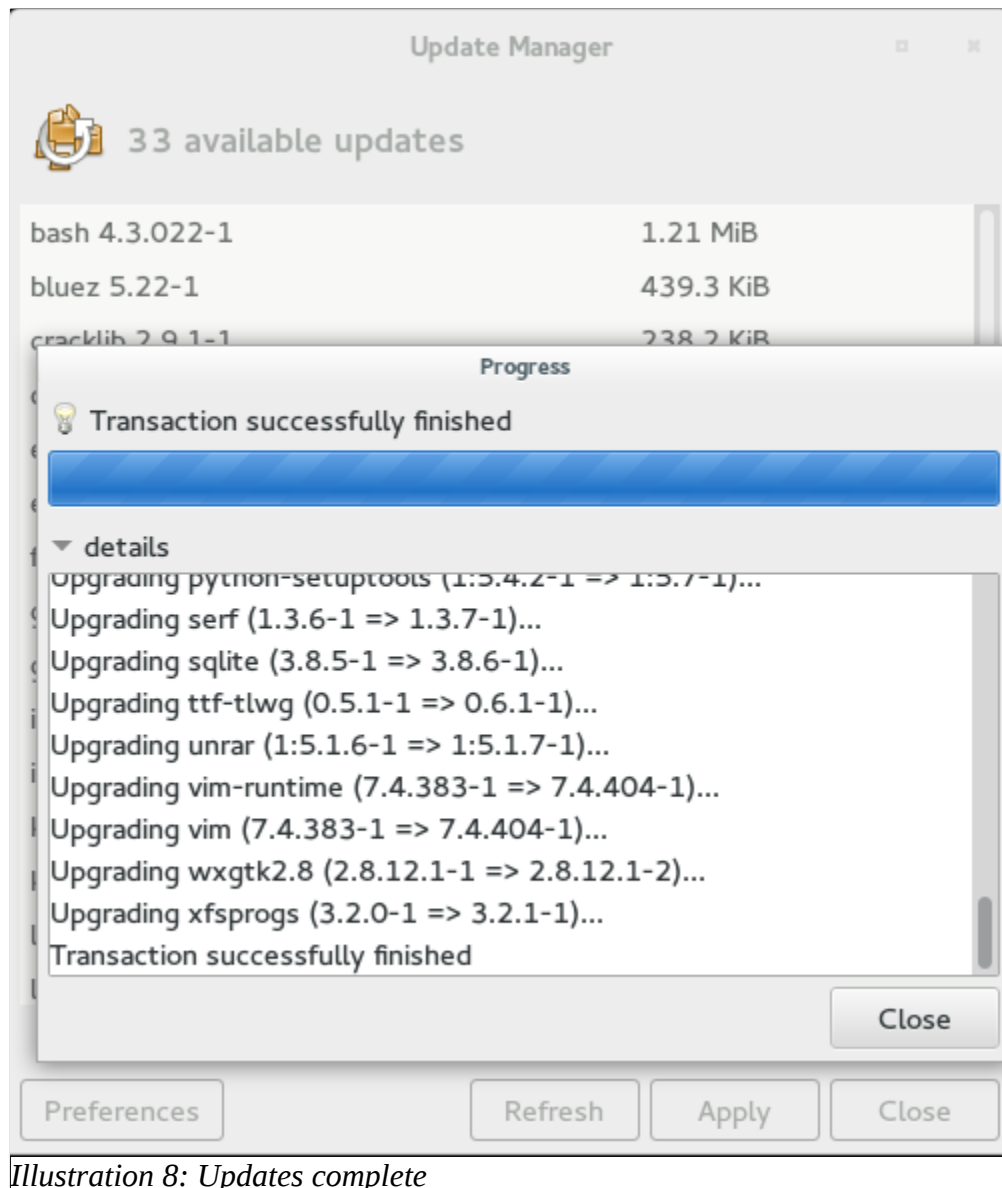
Illustration 8: Updates complete

6.   The Update Manager does one final check and displays the message, "Your system is up-to-date." Click **Close** to close the Update Manager window.

Your system is now up to date with the latest updates and security fixes for the operating system and its installed applications. Everything is now running the latest versions available for each of your software applications.

Need More Software?

Enjoy Sonar's Free software. Never again have to worry about paying for that next upgrade, or having to pay to get the features or functionality you've been looking for. Most of the software applications you will need are either already installed in Sonar, or are available in the repositories.

Note that Sonar Linux is based on the Manjaro Linux distribution, so you may see references to Manjaro repositories, tools, utilities, and support site as you use Sonar. If you see these, don't worry. You are in the right place. The Manjaro Linux team provides a great deal of support for Sonar. In fact, the release of Sonar GNU/Linux would not have been possible without their support.

You use the Package Manager software to get new software applications from the repositories.
1. Click the **Activities** button (or press the **Super** button) to open the Overview.

2. Type "add/remove software" and press **Enter**. The Package Manager opens.

3. The Package Manager offers four tabs to locate the software package you want. The easiest way to find what you want is to use the Search tab. Since this tab is the default, all you need to do is begin typing.

4. You can type the package name if you know it – like "Skype." If you don't know the name, just search for what you want to do, like "image manipulation." The package manager displays the possible packages that match your search in the top right panel.
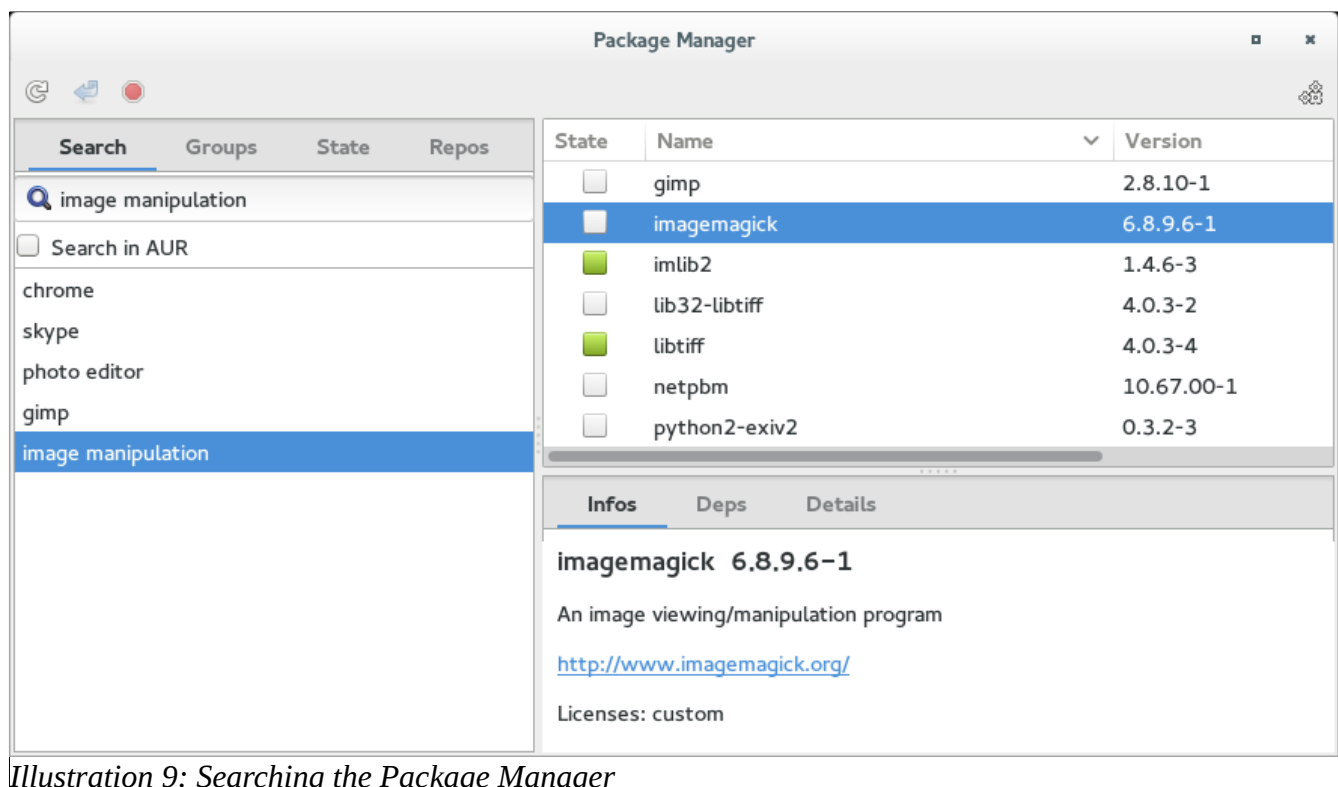

Illustration 9: Searching the Package Manager

5. Click on the name of the package in the list for a brief description of the software.

6. With the package selected in the list, press the **Spacebar** or double-click the check box to indicate that you want to install the package. A check mark appears in the check box. If you change your mind, press the **Spacebar** or double-click again, to uncheck the box.

7. You can continue to search for, and check mark as many software packages as you like, before you begin the installation process. All of the software you have selected, and any other utilities or other packages that they require will be installed, at the same time.

8. To display a "transaction summary" of the packages that will be installed, click the icon at the top of the window that looks like a blue arrow. It's second from the left.
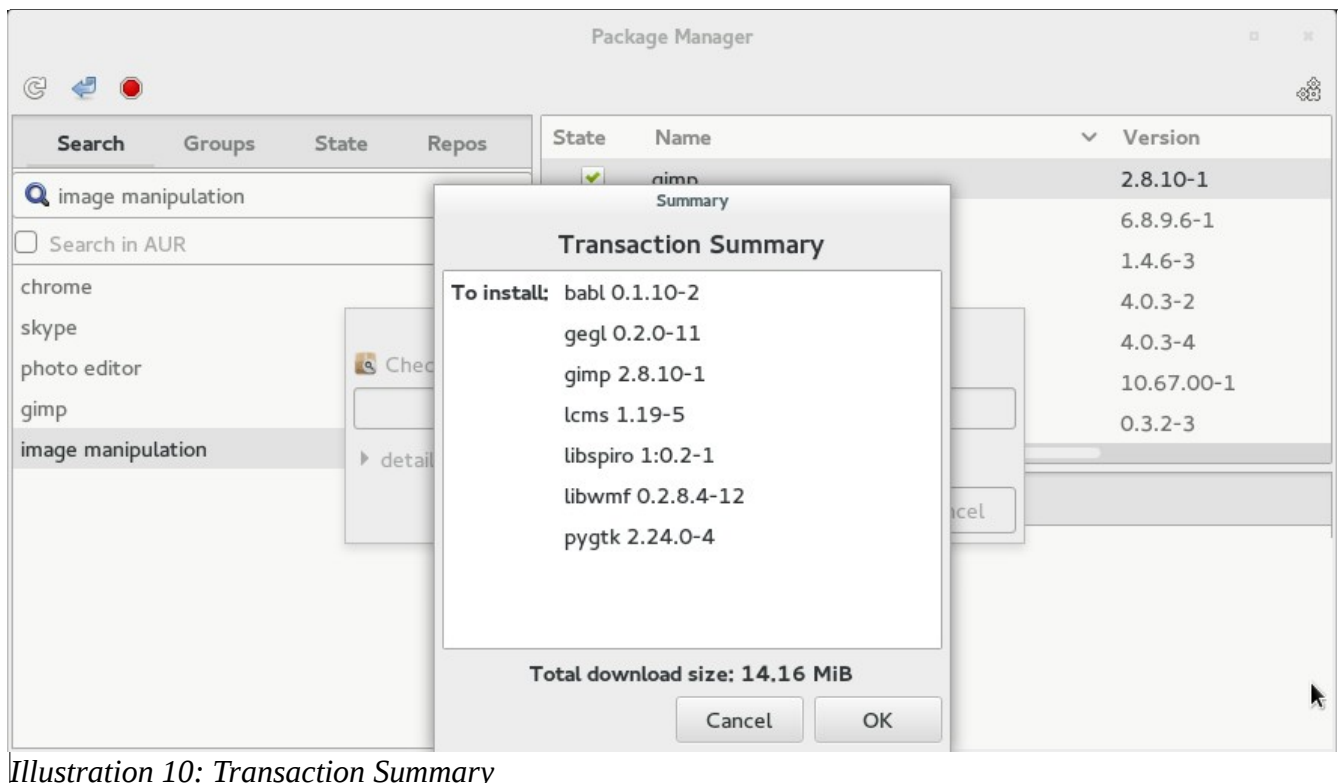
Illustration 10: Transaction Summary

9. Click **OK** to begin the installation.

10. A progress bar keeps you informed as the download and installation proceeds. When the process is complete, the window will display the message, "Transaction successfully finished." Click **Close** to finish.
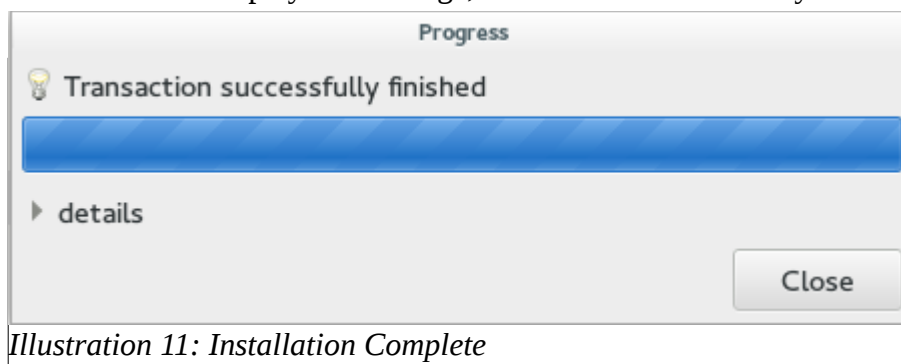
Illustration 11: Installation Complete