



GNOME User Guide

SUSE Linux Enterprise Server 12



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SUSE Linux Enterprise Server 12

Introduces the GNOME desktop of SUSE Linux Enterprise Server. It guides you through using and configuring the desktop and helps you perform key tasks. It is intended mainly for end users who want to make efficient use of GNOME as their default desktop.

Publication date: Sep 30 2014

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<https://www.suse.com/documentation> 

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About This Guide

This manual introduces you to the GNOME graphical desktop environment as implemented in SUSE® Linux Enterprise Server, and shows you how to configure it to meet your personal needs and preferences. It also introduces you to several programs and services. It is intended for users who have some experience using a graphical desktop environment such as Macintosh*, Windows*, or other Linux desktops.

The manual is divided into two parts:

Introduction

Get to know your GNOME desktop and learn how to cope with basic and daily tasks using the central GNOME applications, as well as various small utilities. Get an overview of the possibilities that GNOME offers for modifying and individualizing the desktop according to your needs and wishes. Learn how to use assistive technologies to improve accessibility in case of vision or mobility impairment.

Connectivity, Files and Resources

Find vital information concerning the management and exchange of data on your system: how to share files on the network and how to use an integrated collaboration environment, how to effectively search for data, and how to manage printers and back up your data.

LibreOffice

Introduces the LibreOffice suite, including Writer, Calc, Impress, Base, Draw, and Math.

Information Management

Get to know the e-mailing and calendaring software provided by your product. Learn how to use protected information transfer by signing and encrypting your documents or mails.

Communication and Collaboration

Stay in contact with others and communicate via network connections using Instant Messaging or Voice over IP.

Internet

Search for information on the Web with browsers combining the latest browsing and security technologies. Make use of file transfer clients to transfer data from the Internet.

Graphics

Get to know GIMP, an image manipulation program that meets the needs of both amateurs and professionals.

Multimedia

Get introduced to your desktop's applications for playing movies. Learn how to create data or audio CDs and DVDs for archiving your data.

Many chapters in this manual contain links to additional documentation resources. These include additional documentation that is available on the system as well as documentation available on the Internet.

For an overview of the documentation available for your product and the latest documentation updates, refer to <http://www.suse.com/doc> or to the following section.

1 Available Documentation

We provide HTML and PDF versions of our books in different languages. The following manuals for users and administrators are available for this product:

Article “Installation Quick Start”

Lists the system requirements and guides you step-by-step through the installation of SUSE Linux Enterprise Server from DVD, or from an ISO image.

Book “Deployment Guide”

Shows how to install single or multiple systems and how to exploit the product inherent capabilities for a deployment infrastructure. Choose from various approaches, ranging from a local installation or a network installation server to a mass deployment using a remote-controlled, highly-customized, and automated installation technique.

Book “Administration Guide”

Covers system administration tasks like maintaining, monitoring and customizing an initially installed system.

Book “Virtualization Guide”

Describes virtualization technology in general, and introduces libvirt—the unified interface to virtualization—as well as detailed information on specific hypervisors.

Book “Storage Administration Guide”

Provides information about how to manage storage devices on a SUSE Linux Enterprise Server.

Book “AutoYaST”

AutoYaST is a system for installing one or more SUSE Linux Enterprise systems automatically and without user intervention, using an AutoYaST profile that contains installation and configuration data. The manual guides you through the basic steps of auto-installation: preparation, installation, and configuration.

Book “Security Guide”

Introduces basic concepts of system security, covering both local and network security aspects. Shows how to make use of the product inherent security software like AppArmor or the auditing system that reliably collects information about any security-relevant events.

Book “Security and Hardening Guide”


Deals with the particulars of installing and setting up a secure SUSE Linux Enterprise Server, and additional post-installation processes required to further secure and harden that installation. Supports the administrator with security-related choices and decisions.

Book “System Analysis and Tuning Guide”

An administrator's guide for problem detection, resolution and optimization. Find how to inspect and optimize your system by means of monitoring tools and how to efficiently manage resources. Also contains an overview of common problems and solutions and of additional help and documentation resources.

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Find HTML versions of most product manuals in your installed system under `/usr/share/doc/manual` or in the help centers of your desktop. Find the latest documentation updates at <http://www.suse.com/doc>  where you can download PDF or HTML versions of the manuals for your product.

2 Feedback

Several feedback channels are available:

Bugs and Enhancement Requests

For services and support options available for your product, refer to <http://www.suse.com/support/> .

To report bugs for a product component, go to <http://www.suse.com/mysupport>, log in, and select *Submit New SR*.

User Comments

We want to hear your comments about and suggestions for this manual and the other documentation included with this product. Use the User Comments feature at the bottom of each page in the online documentation or go to <http://www.suse.com/doc/feedback.html> and enter your comments there.

Mail

For feedback on the documentation of this product, you can also send a mail to doc-team@suse.de. Make sure to include the document title, the product version and the publication date of the documentation. To report errors or suggest enhancements, provide a concise description of the problem and refer to the respective section number and page (or URL).

3 Documentation Conventions

The following typographical conventions are used in this manual:

- /etc/passwd: directory names and file names
- placeholder: replace placeholder with the actual value
- PATH: the environment variable PATH
- ls, --help: commands, options, and parameters
- user: users or groups
- Alt, Alt-F1: a key to press or a key combination; keys are shown in uppercase as on a keyboard
- *File*, *File > Save As*: menu items, buttons
- This paragraph is only relevant for the x86_64 architecture. The arrows mark the beginning and the end of the text block.
- *Dancing Penguins* (Chapter *Penguins*, ↑*Another Manual*): This is a reference to a chapter in another manual.

I Introduction

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1 Getting Started with the GNOME Desktop

This section describes the conventions, layout, and common tasks of the GNOME desktop as implemented in your product.

GNOME is an easy-to-use graphical interface that can be customized to meet your needs and personal preferences. This section describes the default configuration of GNOME. If you or your system administrator modifies the defaults, some aspect might be different, such as appearance or key combinations.

1.1 Getting Started

If more than one user account is configured on your computer, generally all users must authenticate—unless *Auto Login* is enabled for a specific user. Auto login lets a user automatically log in to the desktop environment when the system starts. This feature can be enabled or disabled during installation or at any time using the YaST User and Group Management module. For more information, refer to *Book “Deployment Guide” 12 “Managing Users with YaST”*. If your computer is running in a network environment and you are not the only person using the machine, you are usually prompted to enter your user name and password when you start the system.

The GNOME desktop appears after you first log in. The GNOME desktop appears with a panel at the bottom with following elements:

Applications menu

Click *Applications* in the left corner to open a menu with all the installed programs. These are classified under different categories for a better overview. Sub-items open automatically as soon as you place the mouse above them.

Clicking *Activities Overview* in the bottom part of the *Applications* menu takes you to the so-called Activities overview where you start programs and manage those already running. You also reach this view by placing the mouse pointer in the top left corner of the screen or pressing the *Windows* key (also called the *Super* key). You return to the normal view by clicking *Applications* or pressing the *Escape* key.

Places menu

Click *Places* further to the right to open a menu containing important directories (such as your personal directory or the Download directory), show content of connected data carriers and establish a connection to another computer (connection to server).

The middle part of the panel

All applications currently open on the desktop (on the active workspace) appear in the middle part of the panel. You can access these applications by clicking their name.

Workspace menu

The first menu on the right lets you choose a workspace (a virtual desktop) to work on.

Date and time

The current date and time is shown to the right from the workspace menu. By clicking it, open a menu where you can access a calendar and adjust the date and time settings.

Status icons

In the right corner of the panel, icons showing the current status of the network connection, sound volume and power (battery) status are displayed.

By clicking them, you open a menu where you can adjust the sound volume, the display brightness, the network connection, and the power settings. There is also the name of the current user. Click the name to display the options for logging out or for switching to another user.

The three icons in the lower part of the menu allow you to, from left to right, open the GNOME settings dialog, lock the screen, and power off or restart your computer.

1.1.1 Activities Overview

Activities overview is a special mode that dedicates a full screen to all the different ways in which the user can switch from doing one thing (an activity) to doing something else. It shows previews of all the windows the user has open and the user's favorite and running applications. It also integrates search and browse functionality.

1.1.1.1 Activating the Activities Overview

There are three ways to activate the activities overview:

- Open the *Applications* menu on the bottom panel and choose *Activities Overview*.
- Press the *Windows* key (also called the *Super* key).

1.1.1.2 Using the Activities Overview

The activities overview contains three important parts:

- On the left, there is a favorite bar. It contains favorite applications as well as the running applications with open windows. If you hover over one of the icons with the mouse pointer, GNOME will tell you the name of the pertaining application. A light glow indicates that the application is running and (at least) one window is open. Right-clicking an icon opens a small menu which offers different actions depending on the associated program. With Add to Favorites, you can place the application icon permanently in Dash. To remove a program icon from Dash, select Remove from Favorites. If you want to rearrange an icon in the dock, hold the left mouse button pressed above it and then drag it to its new position.
- On the top, there is a search box. If you cannot find what you are looking for or when things need to get done quickly, the small search box on the top will help. As soon as you enter a term there, GNOME will show all the matching applications and system settings. By the way, you do not need to click the search box first, you can begin typing directly.
- On the right, there is an overview of active virtual desktops. Click to switch to a selected virtual desktop.

1.1.2 Starting Programs

To start a program, you have several options:

Click *Applications* in the bottom panel and choose the desired program from the hierarchical menu.

If you know the exact command to start the program, you can press **Alt-F2**, enter the command into the dialog and press **Enter**.

You can also start the program using the activities view. You can reach this view by placing the mouse pointer in the top left corner of the screen or pressing the *Windows* key (also called the *Super* key). Now you have two options. Either click the program icon in the bar on the left edge of the screen, or enter a term into the search box in the upper part of the activities view. You can use the name of the desired program or try any meaningful keywords, such as image or photo in the case you need an image editor.

1.2 Logging In and Selecting a Desktop

If more than one user account is configured on your computer, generally all users must authenticate—unless *Auto Login* is enabled for a specific user. Auto login lets a user automatically log in to the desktop environment when the system starts. This feature can be enabled or disabled during installation or at any time using the YaST User and Group Management module. For more information, refer to Book “Deployment Guide” 12 “*Managing Users with YaST*”. If your computer is running in a network environment and you are not the only person using the machine, you are usually prompted to enter your user name and password when you start the system.

In the login screen, click your user name, enter your password and click to log in. If your name is not listed, click *Not listed?* and enter your user name, password and click to log in.

In the top right corner, there are status icons and the assistive technologies menu. By clicking the status icons, open a menu that allows you to set the sound volume and restart or power off the machine.

1.2.1 Locking Your Screen

To lock the screen, click the status icons on the right of the main panel and click the lock icon. When you lock your screen, a screen saver starts, locking the screen. To unlock the screen, move your mouse or press a key to display the locked screen dialog. Enter your password, then press to unlock the screen.

1.3 Logging Out

When you have finished using the computer, you can log out (leaving the system running), restart or shut down the computer. If your system provides power management you can also suspend your computer, making the next session start much faster than with a complete reboot.

1.3.1 Logging Out or Switching Users

1. Click the status icons on the right of the main panel to open the menu.

2. Click your user name.
3. Select one of the following options:

Log Out

Logs you out of the current session and returns you to the Login screen.

Switch User

Suspends your session, allowing another user to log in and use the computer.

1.3.2 Restarting or Shutting Down the Computer

1. Click the status icons on the right of the main panel to open the menu.
2. Click the power off icon in the lower right part of the menu.
3. Select one of the following options:

Power Off

Logs you out of the current session, then turns off the computer.

Restart

Logs you out of the current session, then restarts the computer.

Suspend

Puts your computer in a temporary state that conserves minimal power (“Suspend to RAM”). The state of your session is preserved, however, including all applications you have running and all documents you have open.

Hibernate

Suspends your session, using no power until the computer is restarted (“Suspend to Disk”). The state of your session is preserved, however, including all applications you have running and all documents you have open.

2 Working with Your Desktop

Now you can start to work with your desktop. In this chapter you will learn how to start applications, manage and search files and burn CDs. You will get familiar with the power management concept of GNOME and find out how to perform regular tasks with your desktop.

2.1 Managing Directories and Files with Nautilus

Use the Nautilus file manager to create (or view) directories and documents, run scripts and create CDs of your data. In addition, the file manager provides support for Web and file viewing.

You can open the file manager in the following ways:

- Click *Applications* > *Accessories* > *Files*.
- Double-click your Home directory icon on the desktop.
- Put your mouse in the top left corner of the screen to activate the activities overview and enter nautilus into the search bar.

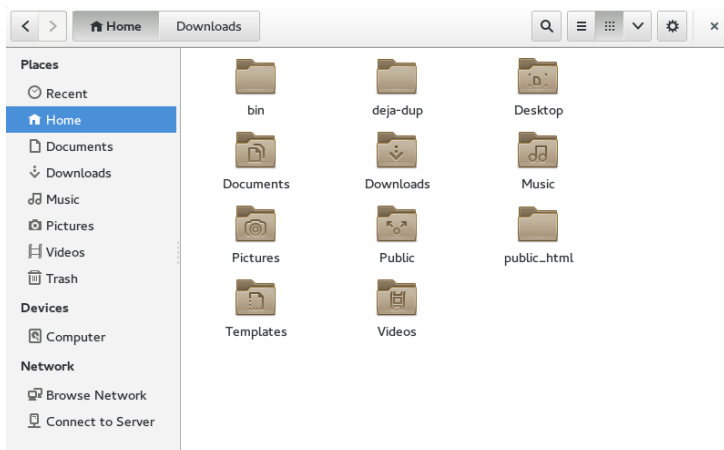


FIGURE 2.1: FILE MANAGER

The elements of the Nautilus window include the following:

Menu. Lets you perform most tasks in the file manager. You can also open a context-sensitive pop-up menu from a file manager window by right-clicking inside it. The items in this menu depend on where you right-click. For example, if you right-click a file or directory, you can select items related to the file or directory. If you right-click the background of a view pane, you can select items related to the display of items in the view pane.

Toolbar. Lets you quickly navigate among files and directories, and provides access to them. The toolbar contains Back, Forward, Up, Stop, Reload, Home, Computer, and Search buttons.

Location Bar. The location bar displays the current location in the file system. Each directory is displayed as a button. Navigate to a location by pressing a button.

Side Pane. Lets you navigate or display information about the selected file or directory. Use the drop-down box to customize what is shown in the pane. The list includes ways to view information about files, perform actions on files, add emblems to files, view a history of recently visited sites and display your files in the Tree system. To display or hide the side pane press **F9**.


View Pane. Displays directories and files. Use the icons in the top right part of the window to switch between list and grid icon view. The menu to the right of these icons can be used to further customize the view.

2.1.1 File Manager Navigation Shortcuts

Some simple key combination for navigating in the file manager include the following:

TABLE 2.1: FILE MANAGER NAVIGATION KEY COMBINATIONS

Key Combination	Description
Alt – ↑	Opens the parent directory.
Arrow key	Selects an item.
Alt – ↓ or Enter	Opens an item.
Alt – Enter	Opens an item's <i>Properties</i> dialog.
Shift – Alt – ↓	Opens an item and closes the current directory.
Shift – Alt – ↑	Opens the parent directory and closes the current directory.
Shift – Ctrl – W	Closes all parent directories.
Ctrl – L	Toggles the location bar view from the button view to the text-based view.

Key Combination	Description
	Opens your home directory.

2.1.2 Creating a CD/DVD

If your system has a CD or DVD read/write drive, you can use the Nautilus file manager to burn CDs and DVDs.

1. Click *Computer* > *More Applications* > *System* > *CD/DVD Creator*, or insert a blank disc and click *Make Data CD/DVD* or *Make Audio CD/DVD*.
2. Drag and drop the files you want to put on the disc into the Nautilus *CD/DVD Creator* window.
3. Click *Write to Disc*.
4. Modify the information in the *Write to Disc* dialog or accept the defaults, then click *Write*. The files are burned to the disc. This could take a few minutes, depending on the amount of data being burned and the speed of your burner.

To burn an iso image, right-click the iso image file in Nautilus and choose *Write to Disc*. Modify the information in the *Write to Disc dialog* or accept the defaults, then click *Write*.

You can also use the burning application Brasero to burn CDs or DVDs. See [Chapter 20, Brasero: Burning CDs and DVDs](#) for more information.

2.1.3 File Manager Preferences

You can change the file manager preferences by clicking the menu with the wheel icon and selecting *Preferences*.

2.1.4 Accessing Remote Files

You can use Nautilus to access files on remote servers. For more information see [Chapter 5, Accessing Network Resources](#).

2.2 Accessing Removable Media

To access CDs/DVDs or USB storage devices, insert the medium. An icon for the medium is automatically created on the desktop. For many types of removable media, a file manager window pops up automatically when the media is inserted or attached to the computer. If file manager does not open, double-click the icon for that drive to view the contents.



Warning: Unmount to Prevent Data Loss

Do not simply remove disks from the drive after using them. Removable media must always be unmounted from the system first. Quit all applications still accessing the medium, then right-click the icon for the medium and select *Eject* or *Unmount* from the menu. Then safely remove the medium when the device icon disappears or the tray opens.

2.3 Searching for Files

To search for files, activate the activities overview by moving the mouse pointer to the top left corner of the screen and enter the search term.

2.4 Moving Text Between Applications

To copy text between applications, select the text, then move the mouse cursor to the position where you want the text to be pasted. Click the center button on the mouse or the scroll wheel to paste the text.

When copying information between programs, you must keep the source program open and paste the text before closing it. When a program closes, any content from that application that is on the clipboard is lost.

2.5 Managing Internet Connections

To surf the Internet or send and receive e-mail messages, you must have configured an Internet connection with YaST. Depending on your environment, in YaST select whether to use NetworkManager. In GNOME, you can then establish Internet connections with NetworkManager as described in *Book “Administration Guide” 24 “Using NetworkManager”* 24.3 “Configuring Network Connections”.

For a list of criteria to help you decide whether to use NetworkManager, refer to *Book “Administration Guide” 24 “Using NetworkManager”* 24.1 “Use Cases for NetworkManager”.

2.6 Exploring the Internet

The GNOME desktop includes Firefox, a Mozilla*-based Web browser. You can start it by clicking *Applications > Internet > Firefox*.

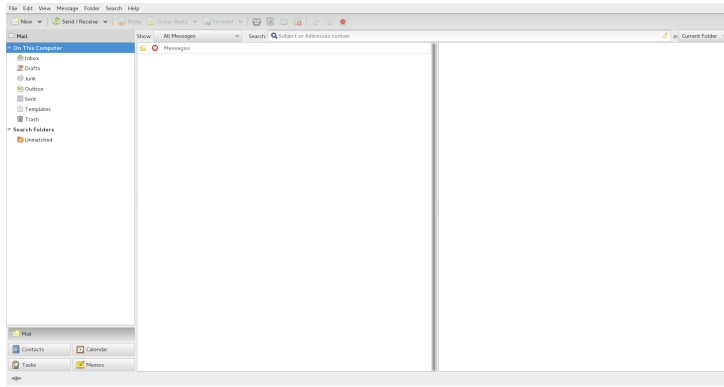
You can type an address into the location bar at the top or click links in a page to move to different pages, like in any other Web browser.

For more information, see *Chapter 16, Firefox: Browsing the Web*.

2.7 E-mail and Scheduling

For reading and managing your mail and events, SUSE Linux Enterprise Server offers you Evolution, a groupware program that makes it easy to store, organize and retrieve your personal information.

Evolution seamlessly combines e-mail, a calendar, an address book, and a memo and task list in one easy-to-use application. With its extensive support for communications and data interchange standards, Evolution can work with existing corporate networks and applications, including Microsoft* Exchange.



To start Evolution, click *Applications > Internet > Evolution*.

The first time you start Evolution, it prompts you with a few questions as it sets up a mail account and helps you import mail from your old mail client. Then it shows you how many new messages you have and lists upcoming appointments and tasks. The calendar, address book and mail tools are available in the shortcut bar on the left.

For more information, see *Chapter 12, Evolution: E-Mailing and Calendaring*.

2.8 Opening or Creating Documents with LibreOffice

For creating and editing documents, LibreOffice is installed with the GNOME desktop. LibreOffice is a complete set of office tools that can both read and save Microsoft Office file formats. LibreOffice has a word processor, a spreadsheet, a database, a drawing tool and a presentation program.

To get started, select a LibreOffice module by clicking *Applications > Office* and selecting the module you want to open.

A number of sample documents and templates are included with LibreOffice. You can access the templates by clicking *File > New > Templates and Documents* within LibreOffice. In addition, you can use wizards, which guide you through the creation of letters and other typical documents.

For more information, view the *Help* in any LibreOffice program.

2.9 Controlling Your Desktop's Power Management

To control the state of the computer battery, check the battery icon in the right part of the GNOME panel. Click the icon to open the menu and see the status of the battery in more detail. On certain events, such as a critically low battery state, GNOME will display notifications informing you about the event. Click *Battery* › *Power Settings* to open Power settings. You can also open the power settings vis *Applications* › *System Tools* › *Settings* › *Power*

2.10 Creating, Displaying, and Decompressing Archives

You can use the Archive Manager application (also known as File Roller) to create, view, modify or unpack an archive. An archive is a file that acts as a container for other files. An archive can contain many files, directories and subdirectories, usually in compressed form. Archive Manager supports common formats such as zip, tar.gz, tar.bz2, lzh, and rar. You can use Archive Manager to create, open and extract a compressed non-archive file.

To start Archive Manager, click *Applications* › *Utilities* › *Archive Manager*. If you already have a compressed file, double-click the file name in the Nautilus file manager to view the contents of the archive in Archive Manager.

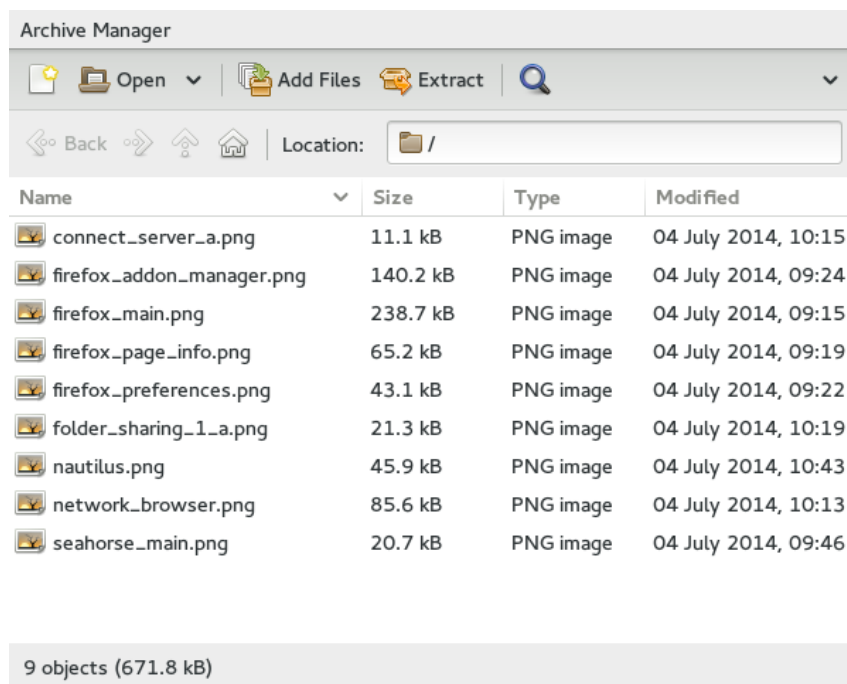


FIGURE 2.2: ARCHIVE MANAGER

2.10.1 Opening an Archive

1. In Archive Manager, click *Open*.
2. Select the archive you want to open.
3. Click *Open*.

Archive Manager automatically determines the archive type, and displays the following:

- The archive name in the window titlebar.
- The archive contents in the display area.
- The total number of files in the archive and the size of the archive when uncompressed, in the statusbar.

To open another archive, click *Open* again. Archive Manager opens each archive in a new window. To open another archive in the same window, you must first choose *Close* from the menu in the right part of the window to close the current archive, then click *Open*.

If you try to open an archive that was created in a format that Archive Manager does not recognize, the application displays an error message.

2.10.2 Extracting Files from an Archive

1. In Archive Manager, select the files that you want to extract.
2. Click *Extract*.
3. Specify the directory where Archive Manager will extract the files.
4. Choose from the following extract options:

Option	Description
All files	Extracts all files from the archive.
Selected files	Extracts the selected files from the archive.
Files	Extracts from the archive all files that match the specified pattern.
Keep directory structure	<p>Reconstructs the directory structure when extracting the specified files.</p> <p>For example, you specify <code>/tmp</code> in the <i>Filename</i> text box and choose to extract all files. The archive contains a subdirectory called <code>doc</code>. If you select the <i>Keep directory structure</i> option, Archive Manager extracts the contents of the subdirectory to <code>/tmp/doc</code>. If you do not select the <i>Keep directory structure</i> option, Archive Manager does not create any subdirectories. Instead, it extracts all files from the archive, including files from subdirectories, to <code>/tmp</code>.</p>
Do not overwrite newer files	<p>If not active, the Archive Manager overwrites any files in the destination directory that have the same name as the specified files.</p> <p>If you select this option, Archive Manager does not extract the specified file if an existing file with the same name already exists in the destination directory.</p>

5. Click *Extract*.

To extract an archived file in a file manager window without opening Archive Manager, right-click the file and select *Extract Here*.

The Extract operation extracts a copy of the specified files from the archive. The extracted files have the same permissions and modification date as the original files that were added to the archive.

The Extract operation does not change the contents of the archive.

2.10.3 Creating Archives

1. In Archive Manager, click the white icon in the top left part of the window.

2. Specify the name and location of the new archive.

3. Select an archive type from the drop-down box.

4. Click *Create*.

Archive Manager creates an empty archive, but does not yet write the archive to disk. Archive Manager writes a new archive to disk only when the archive contains at least one file. If you create a new archive and quit Archive Manager before you add any files to the archive, the archive will be deleted.

5. Add files and directories to the new archive:

- a. Click *Add Files* and select the files or directories you want to add.

- b. Click *Add*.

Archive Manager adds the files to the current directory in the archive.

2.11 Taking Screenshots

You can take a snapshot of your screen or of an individual application window by using the Take Screenshots utility. Start it by pressing **Print** to take a screenshot of the entire desktop or by pressing **Alt-Print** to take a screenshot of the currently active window or dialog.

The screenshots are automatically saved to your ~/Pictures directory.

You can also use GIMP to take screenshots. In GIMP, click *File > Create > Screenshot*, select an area, choose a delay and then click *Snap*.

2.12 Viewing PDF Files

Documents that need to be shared or printed across platforms can be saved as PDF (Portable Document Format) files. SUSE Linux Enterprise Server ships with the Evince Document Viewer.

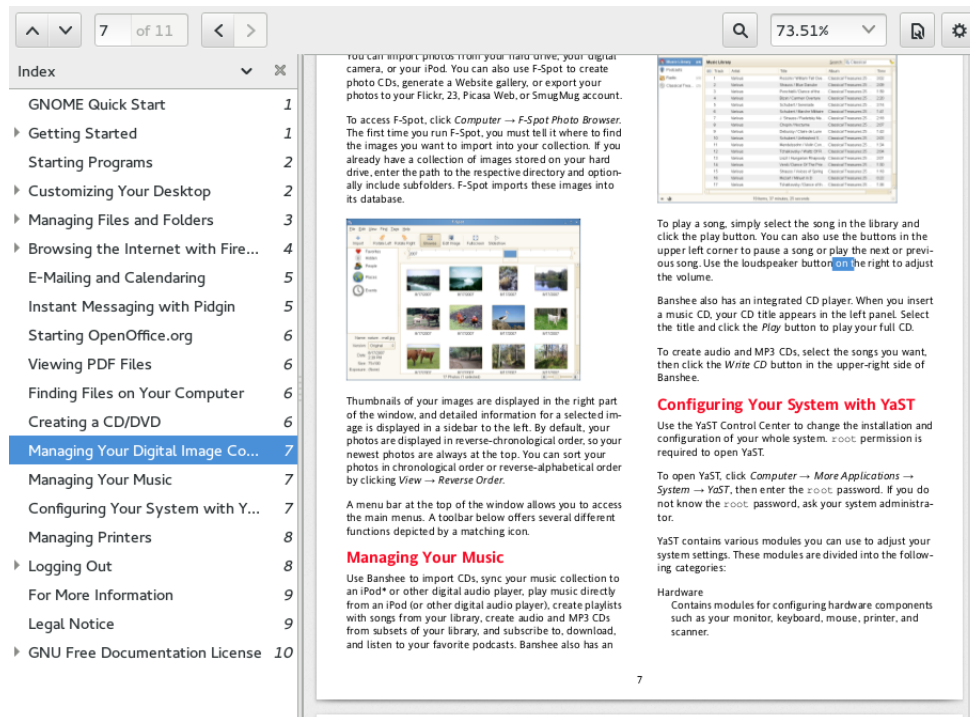


FIGURE 2.3: EVINCE DOCUMENT VIEWER

To open Evince, double-click a PDF file in a file manager window (or Web site) or press **[Alt]–[F2]**, type **evince** and press **[Enter]**.

To view a PDF file in Evince, click the wheel icon to open the menu and select *Open*, locate the desired PDF file and click *Open*.

Use the navigation icons at the top of the window or the thumbnails in the left panel to navigate through the document. If your PDF document provides bookmarks, you can access them in the left panel of the viewer.

2.13 Using the Fingerprint Reader

If your system includes a fingerprint reader, users can log in to the system either by swiping a finger on the fingerprint reader or by typing in a password.

2.14 Obtaining Software Updates

When you connect to the Internet, the updater applet automatically checks whether software updates for your system are available. The updater applet in the system tray of the panel informs you of the availability of updates and lets you easily install them with a few clicks. The applet icon changes color and appearance depending on the availability of updates for your system.

For detailed information on how to install software updates with the updater applet and how to configure it, refer to the chapter about installing and removing software in *Book “Deployment Guide”* 9 “*Installing or Removing Software*”9.4 “*Keeping the System Up-to-date*”.

2.15 For More Information

Along with the applications described in this chapter for getting started, GNOME can run many other applications. Find detailed information about these important applications in the other parts of this manual.

To learn more about GNOME and GNOME applications, see <http://www.gnome.org> and <http://gnomefiles.org>.

To report bugs or add feature requests, go to <http://bugzilla.gnome.org>.

3 Customizing Your Settings

You can change the way the GNOME desktop looks and behaves to suit your own personal tastes and needs. Some of the settings you might want to change include:

- Keyboard and mouse configuration, as described in [Section 3.2.3, “Modifying Keyboard Settings”](#) and [Section 3.2.4, “Configuring the Mouse and Touchpad”](#)
- Desktop background, as described in [Section 3.3.1, “Changing the Desktop Background and Lock Screen Appearance”](#)
- Sounds, as described in [Section 3.2.7, “Configuring Sound Settings”](#)

These settings and others can be changed in the *All Settings* dialog.

3.1 The *All Settings* Dialog

While YaST is a desktop-independent system-wide tool to configure most aspects of your SUSE Linux Enterprise Server installation, such as hardware settings, network devices and services, software management or virtualization, the settings dialog is a GNOME configuration tool and focuses more on the look and feel, personal settings and preferences of your GNOME desktop.

To access the settings dialog, click *Applications > System Tools > Settings*. The dialog is divided into the following three categories:

Hardware

Allows you to configure hardware components such as graphics cards, monitors, printers or keyboard layout, and to set up your sound device and desktop sound effects. For more information, see [Section 3.2, “Hardware”](#).

Personal

Go here to change your login password or to configure key combinations and keyboard accessibility settings. You can also modify the desktop background and language settings. For more information see [Section 3.3, “Personal”](#).

System

Lets you configure system settings such as language, network connections, software sources and updates, your preferred applications, or power management. Define how GNOME handles sessions on login or shutdown. For more information see [Section 3.4, “System”](#).

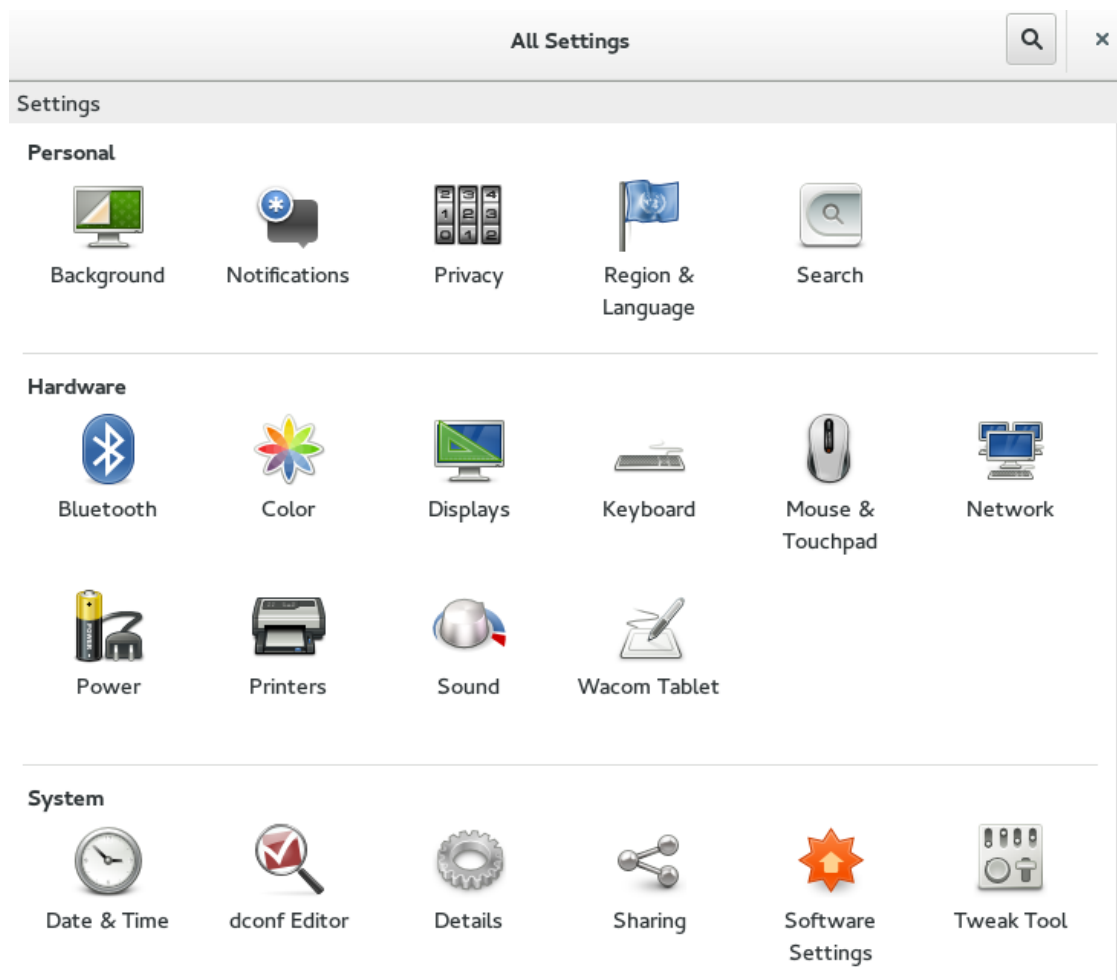


FIGURE 3.1: GNOME SETTINGS DIALOG

In order to change some system-wide settings, the control center will prompt you for the root password and start YaST. This is mostly the case for administrator settings (including most of the hardware, the graphical user interface, Internet access, security settings, user administration, software installation and system updates and information). Follow the instructions in YaST to configure these settings.

This chapter focuses on individual settings you can change directly in the GNOME settings dialog (without YaST interaction).

3.2 Hardware

In the following sections you will find examples of how to configure some hardware aspects of your GNOME desktop, including keyboard or mouse preferences, handling of removable drives (and other media) or screen resolution.

3.2.1 Configuring Bluetooth Settings

The Bluetooth module lets you set the visibility of your machine over Bluetooth and to connect to available Bluetooth devices. To configure Bluetooth connectivity, follow these steps:

1. Click *Applications* > *System Tools* > *Settings* > *Bluetooth* to open the Bluetooth settings module.
2. To use Bluetooth, turn the *Bluetooth* switch on.
3. To make your computer visible over Bluetooth, turn the *Visibility* switch on. This visibility is only temporary. You do not need this option to be turned on to connect to a Bluetooth device.
4. The *Devices* list contains all known Bluetooth devices. In the beginning, it may be empty. To add a device to the list, click the plus icon in the lower left corner. On the device to be connected, turn the Bluetooth visibility on. In *Device Type*, choose the type of the device you want to connect, for example an input device, a phone, a computer or a camera. To see all available devices, set *All Types*. Select the desired device from the list. In *PIN Options* select the appropriate option and click *Continue*. If a PIN was used, confirm the PIN match. To remove a device from the list, select the device and click the minus icon.
5. To connect to a Bluetooth device, select the device in the list and turn the *Connection* switch on. You can send files to the connected device using the *Send Files* button. If you are connected to a device such as a mobile phone, you can use it as a network device by activating the appropriate option.

3.2.2 Configuring Power Settings

1. Click *Applications* > *System Tools* > *Settings* > *Power* to open the Power settings module.
2. In the upper part of the dialog, you can see the current state of the battery.
3. In the *Power Saving* section of the dialog, set the *Screen Brightness* to conserve power. You can also set, whether to dim the screen after a period of inactivity and set the time interval. You can also set, whether to turn off wireless networking after the period of inactivity.

4. In the *Suspend and Power Off* section of the dialog, set the *Automatic Suspend*. When you click it, a separate dialog opens, where you can turn the automatic suspending on and associated time intervals separately for computer running on battery power or plugged in. You can also set the action performed when the battery power is critical (hibernation to the disk or powering off).

3.2.3 Modifying Keyboard Settings

To modify some keyboard settings (such as autorepeat preferences or typing break sessions) click *Applications > System Tools > Settings > Keyboard*.

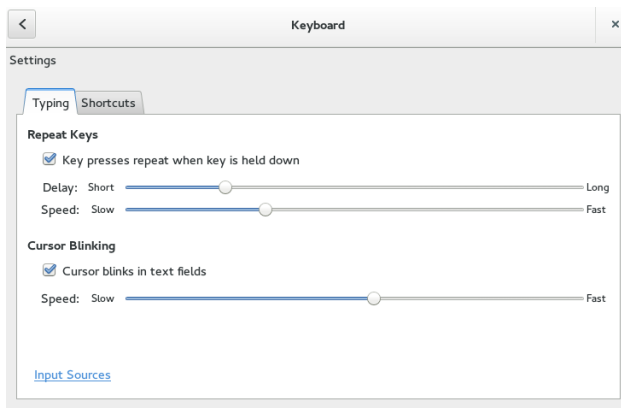


FIGURE 3.2: KEYBOARD SETTINGS DIALOG

1. On the *Typing* tab you can set some general keyboard preferences, such as enabling keyboard repeat with individual delay and speed options or enabling or disabling the blinking of the cursor and defining the speed.
2. On the *Shortcuts* tab you can set the key combinations. To edit a key combination, click the row and hold down the new keys or press backspace to clear the key combination.
3. If all options are set according to your wishes, close the dialog.

For configuration of keyboard accessibility options refer to *Section 4.4, "Mobility Impairments"*.

3.2.4 Configuring the Mouse and Touchpad

To modify some mouse options click *Applications > System Tools > Settings > Mouse and Touchpad*.

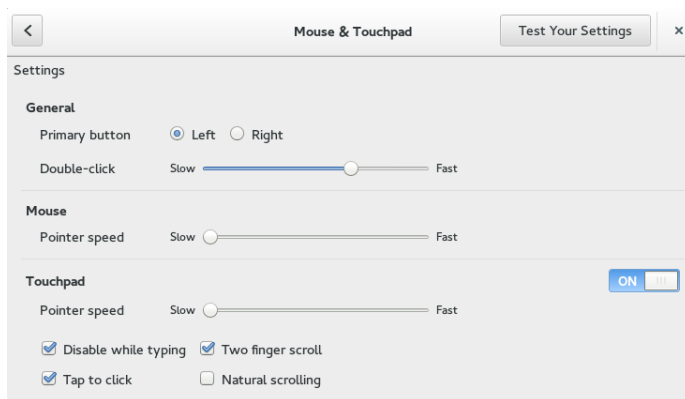


FIGURE 3.3: MOUSE AND TOUCHPAD SETTINGS DIALOG

1. In the *General* section of the dialog, set the *Primary button* orientation (left or right) and the speed of the double-click.
2. In the *Mouse* section of the dialog, use *Pointer Speed* to adjust the sensitivity of the mouse pointer.
3. In the *Touchpad* section of the dialog, turn the touchpad on and off and use *Pointer Speed* to adjust the sensitivity of the touchpad pointer. You can also disable the touchpad while typing and enable clicks by taping the touchpad.
4. To test your new settings, click *Test Your Settings* and try the pointing device. If all options are set according to your wishes, close the dialog.

For configuration of mouse accessibility options refer to the [Section 4.4, “Mobility Impairments”](#).

3.2.5 Installing and Configuring Printers

The *Printers* module lets you connect to any available local or remote CUPS server and configure printers.

To start the Printers module, click *Applications > System Tools > Settings > Printers*. For detailed information refer to [Chapter 6, Managing Printers](#).

3.2.6 Configuring Screens

To specify the resolution, refresh rate and orientation for your screen or to configure multiple screens, click *Applications > System Tools > Settings > Displays* and modify the options.

1. To set options for any monitor, click the monitor's icon and set its resolution and orientation (using the arrows).
2. If you use multiple monitors, you can set their respective positions by dragging their icons to the appropriate location.

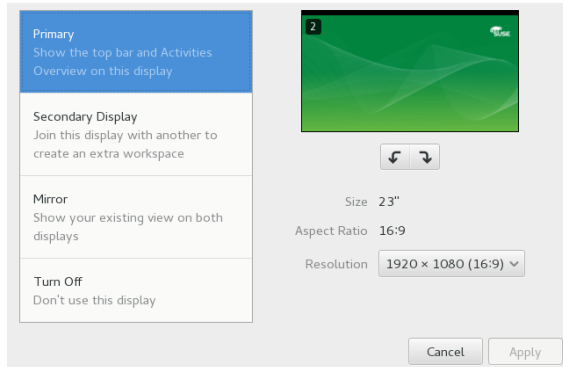


FIGURE 3.4: MONITOR RESOLUTION SETTINGS DIALOG

3.2.7 Configuring Sound Settings

The *Sound* tool lets you manage sound devices and set the sound effects. In the top part of the dialog, you can select the general output volume or turn the sound off completely.

Click *Applications > System Tools > Settings > Sound* to open the sound settings.

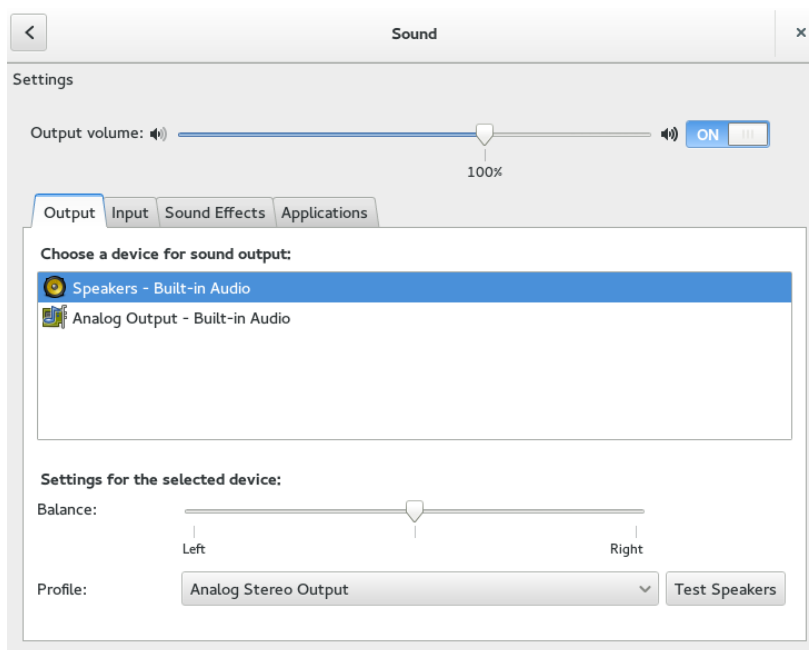


FIGURE 3.5: CONFIGURING SOUND SETTINGS

3.2.7.1 Configuring Sound Devices

Use the *Output* tab to select the device for sound output. Below the list, choose the sound device setting you prefer, for example balance.

Use the *Input* tab to set the input device volume or to mute the input temporarily. If you have more than one sound device, you can also select a default device for audio input in the *Choose a device for sound input* list.

3.2.7.2 Configuring Sound Effects

Use the *Sound Effects* tab to configure sound event functions.

Specify the volume at which the sound effects will be played under *Alert volume*. You can also turn the effects on and off.

Select the *Alert Sound* to use.

3.3 Personal

The following sections introduce examples of how to configure some personal aspects of your GNOME desktop, like your languages used or desktop backgrounds.

3.3.1 Changing the Desktop Background and Lock Screen Appearance

The desktop background is the image or color that is applied to your desktop. You can also customize the image shown when the screen is locked.

To change the desktop background or the lock screen:

1. Click *Applications > System Tools > Settings > Background*.
2. Click *Background* or *Lock Screen*.
3. Click *Wallpapers*, *Pictures*, or *Colors*. Wallpapers are preconfigured images distributed with your system. Pictures are your own images from your Pictures directory (~/Pictures). Colors are predefined colors chosen by GNOME developers.
4. Choose an option from the list.
5. When you are satisfied with your choices, click *Select*.

3.3.2 Configuring Language Settings

SUSE Linux Enterprise Server can be configured to use any of a number of languages. The language setting determines the language of dialogs and menus and can also determine the keyboard and clock layout.

To configure your language settings click *Applications > System Tools > Settings > Region and Language*. Here you can choose the interface language, number formats and input sources (keyboard layouts).

3.4 System

In the following sections you will find examples of how to configure some system aspects of your GNOME desktop, like language settings, power management, preferred applications, session (and session sharing) preferences and audio preferences. For configuration of assistive technologies refer to *Chapter 4, Assistive Technologies*.

3.4.1 Setting Preferred Applications

The Preferred Applications module allows you to change the default application for various common tasks such as browsing the Internet, sending mails or playing multimedia files.

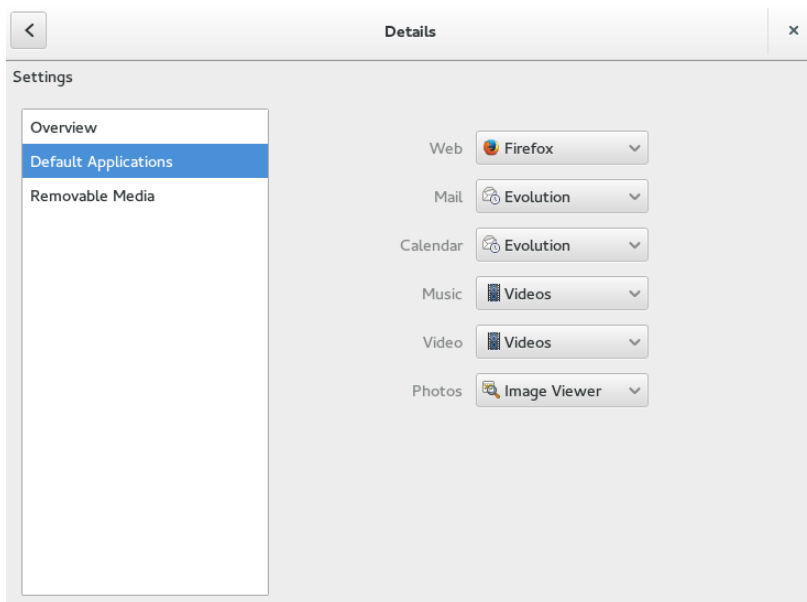


FIGURE 3.6: PREFERRED APPLICATIONS

1. Click *Applications* > *System Tools* > *Settings* > *Details*.
2. Click *Default Applications*.
3. Select one of the available applications from the drop-down box. You can choose an application to handle Web, mail, calendar, music, videos or photographs.

The changes take effect immediately.

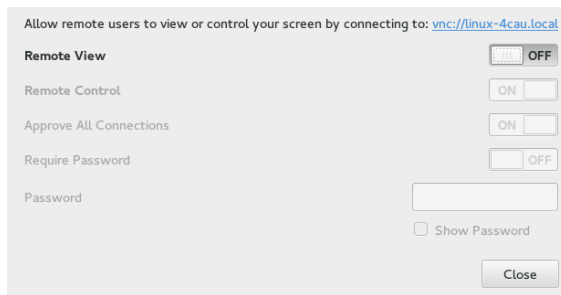
3.4.2 Setting Session Sharing Preferences

The *Remote Desktop Preference* dialog lets you share a GNOME desktop session between multiple users and set session-sharing preferences.

! Important: Sharing Desktop Sessions Affects System Security

Be aware that sharing desktop sessions can be a security risk. Use the restriction options available. If you need to adjust the options to a lower security level, do not forget to switch back to a higher security level as soon as possible.

1. Click *Applications > System Tools > Settings > Sharing*.



2. Turn on the switch in the upper part of the dialog.
3. To share your public directory over the network, click *Personal File Sharing* and turn on *Share Public Folder On This Network*. You can also set a password.
4. To share your desktop session with other users click *Screen Sharing* and activate *Remote View*. To allow other users to control your screen, activate also *Remote Control*. You can also set a password.
5. Click the address in the selected text to send the system address by e-mail to a remote user.

3.4.3 Configuring Administrative Settings with YaST

For your convenience, YaST is available from the Control Panel as well as the Applications menu.

4 Assistive Technologies

The GNOME desktop includes assistive technologies to support users with various impairments and special needs, and to interact with common assistive devices. This chapter describes several assistive technology applications designed to meet the needs of users with physical disabilities like low vision or impaired motor skills.

4.1 Enabling Assistive Technologies

To configure accessibility features, open the GNOME Settings dialog (for example using *Applications > System Tools > Settings*) and click *Universal Access*. Each assistive feature is enabled separately using this dialog.

If you need a more direct access to individual assistive features, check *Always Show Universal Access Menu* in the *Universal Access* dialog. A new menu will appear on the bottom panel.

4.2 Visual Impairments

In the *Visual Impairments* section of the *Universal Access* dialog, you can enable features that help people with impaired vision.

Turning *High Contrast* on enables high contrast black and white icons in the GNOME desktop.

Turning *Large Text* on enlarges the font used in the user interface.

Turning *Zoom* on enables a screen magnifier. You can set the desired magnification and magnifier behavior, including color effects.

If the *Screen Reader* is turned on, any text under the cursor (as you move it) is read aloud.

If the *Sound Keys* are turned on, a sound is played whenever Num Lock or Caps Lock are turned on.

4.3 Hearing Impairments

In the *Hearing Impairments* section of the *Universal Access* dialog, you can enable features helping people with impaired hearing.





If the *Visual Alerts* are turned on, a window title or the entire screen is flashed when an alert sound occurs.

4.4 Mobility Impairments

In the *Typing* and *Pointing and Clicking* sections of the *Universal Access* dialog, you can enable features that help people with mobility impairments.

If the *Screen Keyboard* is turned on, a virtual keyboard appears whenever you need to enter text. You can use the screen keyboard by clicking the virtual keys.

Click *Typing Assist* to open a dialog where you can enable various features that make typing easier: sticky keys, slow keys and bounce keys. You can turn these features on individually.

Sticky Keys allows you to type key combinations one key at a time rather than having to hold down all of the keys at once. For example, the - shortcut switches between windows. Without sticky keys turned on, you have to hold down both keys at the same time. With sticky keys turned on, press  and then  to do the same.

Turn on *Slow Keys* if you want a delay between pressing a key and the letter being displayed on the screen. This means that you need to hold down each key you want to type for a little while before it appears. Use slow keys if you accidentally press several keys at a time when you type, or if you find it difficult to press the right key on the keyboard first time.

Turn on *Bounce Keys* to ignore key presses that are rapidly repeated. For example, if you have hand tremors which cause you to press a key multiple times when you only want to press it once, you should turn on bounce keys.

Turn on *Mouse Keys* to control the mouse pointer using the numeric keypad on your keyboard. Click *Click Assist* to open a dialog where you can enable various features that make clicking easier: simulated secondary click and hover click.

Turn on *Simulated Secondary Click* to activate the secondary click (usually the right mouse button) by holding down the primary button for a predefined *Acceptance delay*. This is useful if you find it difficult to move your fingers individually on one hand, or if your pointing device only has a single button.

Turn on *Hover Click* to trigger a click by hovering your mouse pointer over an object on the screen. This is useful if you find it difficult to move the mouse and click at the same time. If this feature is turned on, a small Hover Click window opens and stays above all of your other

windows. You can use this to choose what sort of click should happen when you hover. When you hover your mouse pointer over a button and don't move it, the pointer gradually changes color. When it has fully changed color, the button will be clicked.

II Connectivity, Files and Resources

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7 Backing Up User Data **41**

5 Accessing Network Resources

From your desktop, you can access files and directories or certain services on remote hosts or make your own files and directories available to other users in your network. SUSE® Linux Enterprise Server offers the following ways of accessing and creating network shared resources.

Network Browsing

Your file manager, Nautilus, lets you browse your network for shared resources and services. Learn more about this in [Section 5.3, “Accessing Network Shares”](#).

Sharing Directories in Mixed Environments

Using Nautilus, configure your files and directories to share with other members of your network. Make your data readable or writeable for users from any Windows or Linux workstation. Learn more about this in [Section 5.4, “Sharing Directories”](#).

Managing Windows Files

SUSE Linux Enterprise Server can be configured to integrate into an existing Windows network. Your Linux machine then behaves like a Windows client. It takes all account information from the Active Directory domain controller, just as the Windows clients do. Learn more about this in [Section 5.5, “Managing Windows Files”](#).

Configuring and Accessing a Windows Network Printer

You can configure a Windows network printer through the GNOME control center. Learn how to do this in [Section 5.6, “Configuring and Accessing a Windows Network Printer”](#).

5.1 Connecting to Your Network

You can connect to a network with wired and wireless connections. To view your network connection check the icon in the right part of the main panel. If you click the icon, you can see more details in the menu. Click the connection name to see more details and access the settings.

5.2 General Notes on File Sharing and Network Browsing

Whether and to what extent you can use file sharing and network browsing on your machine and in your network highly depends on the network structure and on the configuration of your machine. Before setting up either of them, contact your system administrator to make sure that your network structure supports this feature and to check whether your company's security policies permit it.

Network browsing, be it SMB browsing for Windows shares or SLP browsing for remote services, relies heavily on the machine's ability to send broadcast messages to all clients in the network. These messages and the clients' replies to them enable your machine to detect any available shares or services. For broadcasts to work effectively, your machine must be part of the same subnet as all other machines it is querying. If network browsing does not work on your machine or the detected shares and services do not meet with your expectations, contact your system administrator to ensure that you are connected to the appropriate subnet.

To allow network browsing, your machine needs to keep several network ports open to send and receive network messages that provide details on the network and the availability of shares and services. The standard SUSE Linux Enterprise Server is configured for tight security and has a firewall that protects your machine against the Internet. To adjust the firewall configuration, you would either need to ask your system administrator to put your interface into the internal zone or to tear down the firewall entirely (depending on your company's security policy). If you try to browse a network with a restrictive firewall running on your machine, Nautilus warns you that your security restrictions are not allowing it to query the network.

5.3 Accessing Network Shares

Networking workstations can be set up to share directories. Typically, files and directories are marked to allow users remote access. These are called *network shares*. If your system is configured to access network shares, you can use your file manager to access these shares and browse them just as easily as if they were located on your local machine. Your level of access to the shared directories (whether read-only or write access, as well) is dependent on the permissions granted to you by the owner of the shares.

To access network shares, open Nautilus and click *Browse Network* from the *Places* pane. Nautilus displays the servers and networks that you can access. Double-click a server or network to access its shares. You might be required to authenticate to the server by providing a user name and password. Common network shares are SFTP-accessible resources (SSH File Transfer Protocol) or Windows shares.

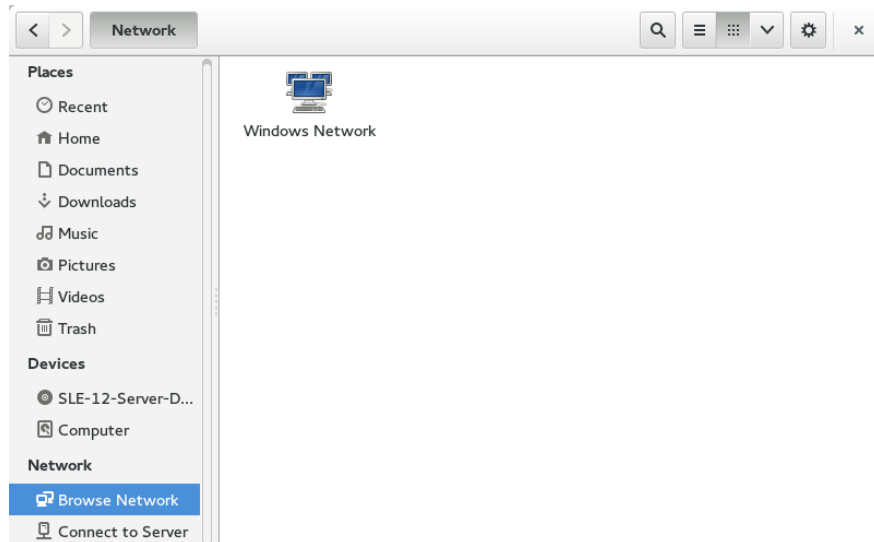


FIGURE 5.1: NETWORK FILE BROWSER

5.3.1 Adding a Network Place

1. Click *Applications > Accessories > Files > Connect to Server*.

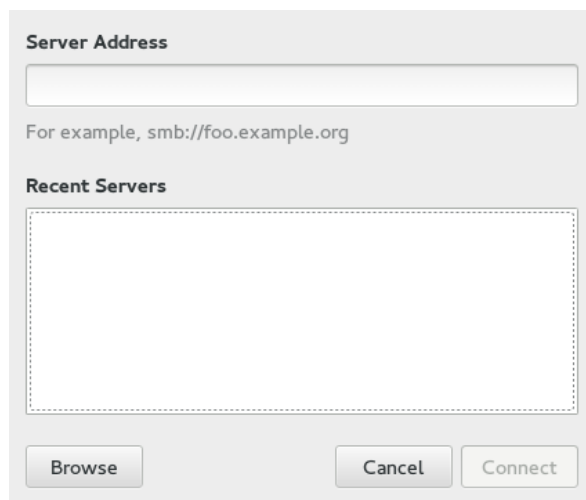


FIGURE 5.2: CONNECT TO THE SERVER DIALOG

2. Enter the server address.
3. Click *Connect*.

5.4 Sharing Directories

Sharing and exchanging documents is a must-have in corporate environments. Nautilus offers you file sharing, which makes your files and directories available to both Linux and Windows users.

5.4.1 Enabling Sharing on the Computer

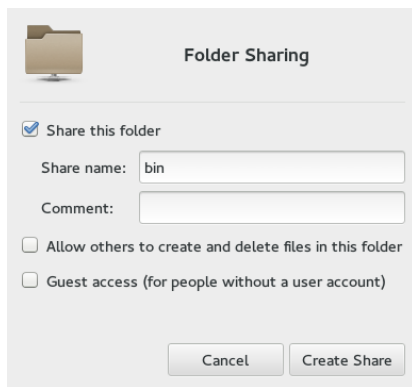
Before you can share a directory, you must enable sharing on your computer. To enable sharing:

1. Start YaST from the main menu.
2. Enter the root password.
3. Click *Network Services*.
4. Click *Windows Domain Membership*.
5. Click *Allow Users to Share Their Directories*, then click *OK*.

5.4.2 Enabling Sharing for a Directory

To configure file sharing for a directory:

1. Open Nautilus.
2. Right-click a directory, then select *Sharing Options* from the context menu.



3. Select *Share this folder*.
4. If you want other people to be able to write to the directory, select *Allow other people to write in this folder*. To allow access for people without a user account check *Guest Access*.
5. Click *Create Share*.
6. If the directory does not already have the permissions that are required for sharing, a dialog appears. Click *Add the permissions automatically*.

The directory icon changes to indicate that the directory is now shared.

Important: Samba Domain Browsing

Samba domain browsing only works if your system's firewall is configured accordingly. Either disable the firewall entirely or assign the browsing interface to the internal firewall zone. Ask your system administrator about how to proceed.

5.5 Managing Windows Files

With your SUSE Linux Enterprise Server machine being an Active Directory client, you can browse, view and manipulate data located on Windows servers. The following examples are the most prominent ones:

Browsing Windows Files with Nautilus

Use Nautilus's network browsing features to browse your Windows data.

Viewing Windows Data with Nautilus

Use Nautilus to display the contents of your Windows user directory as you would for displaying a Linux directory. Create new files and directories on the Windows server.

Manipulating Windows Data with GNOME Applications

Many GNOME applications allow you to open files on the Windows server, manipulate them and save them back to the Windows server.

Single-Sign-On

GNOME applications, including Nautilus, support Single-Sign-On. This means that to access other Windows resources, such as Web servers, proxy servers or groupware servers like MS Exchange, you do not need to reauthenticate. Authentication against all these is handled silently in the background using the user name and password you provided on login.

To access your Windows data using Nautilus, proceed as follows:

1. Open Nautilus and click *Network* in the Places pane.
2. Double-click *Windows Network*.
3. Double-click the icon of the workgroup containing the computer you want to access.
4. Click the computer's icon (and authenticate if prompted to do so) and navigate to the shared directory on that computer.

To create directories in your Windows user directory using Nautilus, proceed as you would when creating a Linux directory.

5.6 Configuring and Accessing a Windows Network Printer

Being part of a corporate network and authenticating against a Windows Active Directory server, you can access corporate resources such as printers. GNOME allows you to configure printing from your Linux client to a Windows network printer.

To configure a Windows network printer for use through your Linux workstation, proceed as follows:

1. Start the GNOME control center from the main menu by clicking *Applications > System Tools > Hardware > Printers*.
2. Click *Unlock* and enter root password.
3. Click *Add New Printer*.
4. Select a Windows printer connected via Samba.

To print to the Windows network printer configured above, select it from the list of available printers.

6 Managing Printers

SUSE® Linux Enterprise Server makes it easy to print your documents, whether your computer is connected directly to a printer or linked remotely on a network. This chapter describes how to set up printers in SUSE Linux Enterprise Server and manage print jobs.

6.1 Installing a Printer

Before you can install a printer, you need to know the root password and have your printer information ready. Depending on how you connect the printer, you might also need the printer URI, TCP/IP address or host, and the driver for the printer. A number of common printer drivers ship with SUSE Linux Enterprise Server. If you cannot find a driver for the printer, check the printer manufacturer's Web site.

1. Click *Applications > System Tools > Settings > Printers*.
2. Click *Unlock* and enter the root password.
3. Click *Add New printer*.
4. If there are too many printers in the list, filter them by entering an IP address or a keyword into the search field in the lower part of the dialog.
5. Select a printer from the list of available printers and click *Add*.

The installed printer appears in the Printers panel. You can now print to the printer from any application.

7 Backing Up User Data

The Backup tool is a simple framework to let users back up and restore their own data such as home directories or selected files. It is possible to create scheduled backups or backups on request, and to play back a previous state of this data.

7.1 Creating Backups

First schedule which data you want to back up and when to do it.

1. *Applications > Utilities > Backup.*
2. On the *Overview* tab you can turn the *Automatic backups* on and off. You can also see the overview of the current settings. You can also use *Back Up Now* to perform an unscheduled manual back up.
3. On the *Exceptions* tab add files and directories you want to exclude from the backup.
4. On the *Folders* tab select the directories to back up and directories to ignore. For example, if you want to back up your home directory except for the Downloads directory, add your home directory to back up and your Downloads directory to ignore.
5. On the *Schedule* tab select how often to perform the automatic backups (daily or weekly) and how long to keep the backups.

7.2 Restoring Data

To restore a previous state of your data, proceed as follows:

1. Select *Applications > Utilities > Backup*. On the *Overview* tab, click *Restore*.
2. Choose the location from which to restore. Click *Forward*.
3. Choose a date. Click *Forward*.
4. Choose where to restore. Click *Restore*.

III LibreOffice

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8 LibreOffice: The Office Suite

LibreOffice is an open-source office suite that provides tools for all types of office tasks such as writing texts, working with spreadsheets, or creating graphics and presentations. With LibreOffice, you can use the same data across different computing platforms. You can also open and edit files in other formats, including Microsoft Office, then save them back to this format, if needed. This chapter contains information that applies to all of the LibreOffice modules.

8.1 LibreOffice Modules

LibreOffice consists of several application modules (subprograms), which are designed to interact with each other. They are listed in *Table 8.1*. A full description of each module is available in the online help, described in *Section 8.9, “For More Information”*.

TABLE 8.1: THE LIBREOFFICE APPLICATION MODULES

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

8.2 Starting LibreOffice

To start the LibreOffice suite, press **Alt-F2** and enter **libreoffice**. You can also use *Applications > Office > LibreOffice*. The LibreOffice window opens. The following chapters cover individual LibreOffice modules:

Chapter 9, LibreOffice Writer

Introduces LibreOffice Writer.

Chapter 10, LibreOffice Calc

Introduces LibreOffice Calc.

Chapter 11, LibreOffice Impress, Base, Draw, and Math

Introduces LibreOffice Impress, Base, Draw, and Math.

In the selection dialog, choose the module you want to open or which file type you want to create. If any LibreOffice application is open, you can start any of the other applications by clicking *File > New > Name of Application*.

You can also start individual LibreOffice modules from your main menu. As an alternative, use the command **libreoffice** and one of the options `--writer`, `--calc`, `--impress`, `--draw` or `--base` to start the respective module. Find more useful options with `--help`.

Before you start working with LibreOffice, you may be interested in changing some options from the preferences dialog. Click *Tools > Options* to open it. The most important ones are:

LibreOffice > User Data

Insert your user data like company, first and last name, street, city, and other useful information. This data is used in LibreOffice Writer for annotations, for example.

LibreOffice > Fonts

Offers mappings from one font name to another. This could be useful, if you exchange documents with others and the document you received contains fonts that are not available on your system.

Load/Save > General

Contains load and save specific options. For example, here select the option to always create a backup copy or decide which default file format LibreOffice should use.

8.3 Compatibility with Other Office Applications

LibreOffice can work with documents, spreadsheets, presentations, and databases in many other formats, including Microsoft Office. They can be easily opened like other files and saved back to the original format. If you have problems with your documents, consider opening them in the original application and resaving them in an open format such as RTF for text documents. In case of migration issues with spreadsheets however, it is advisable to re-save them as Excel files and use this as intermediate format (with CSV format you would lose all cell formatting and CSV sometimes leads to incorrect cell type detection for spreadsheets).

8.3.1 Converting Documents to the LibreOffice Format

LibreOffice can read, edit, and save documents in a number of formats. It is not necessary to convert files from those formats to the LibreOffice format to use those files. However, if you want to convert the files, you can do so. To convert a number of documents, such as when first switching to LibreOffice, do the following:

1. Select *File* > *Wizards* > *Document Converter*.
2. Choose the document type (StarOffice* or Microsoft Office).
3. Choose the file format from which to convert.
4. Click *Next*.
5. Specify where LibreOffice should look for templates and documents to convert and in which directory the converted files should be placed.
Documents retrieved from a Windows partition are usually in a subdirectory of /windows.
6. Make sure that all other settings are correct, then click *Next*.
7. Review the summary of the actions to perform, then start the conversion by clicking *Convert*. When everything is done, close the Wizard by clicking *Close*.
The amount of time needed for the conversion depends on the number of files and their complexity. For most documents, conversion does not take very long.

8.3.2 Sharing Files with Users of Other Office Suites

LibreOffice is available for a number of operating systems. This makes it an excellent tool when a group of users frequently need to share files and do not use the same system on their computers. When sharing documents with others, you have several options.

If the recipient needs to be able to edit the file

Save the document in the format the other user needs. For example, to save as a Microsoft Word file, click *File* > *Save As*, then select the Microsoft Word file type for the version of Word the other user needs.

If the recipient only needs to read the document

Export the document to a PDF file with *File* > *Export as PDF*. PDF files can be read on any platform using a PDF viewer.

If you want to share a document for editing

Agree on a common exchange format that works for everyone. TXT and RTF formats, although limited in formatting, might be a good option for text documents.

If you want to e-mail a document as a PDF

Click *File > Send > E-mail as PDF*. Your default e-mail program opens with the file attached.

If you want to e-mail a document to a Microsoft Word user

Click *File > Send > E-mail as Microsoft Word*. Your default e-mail program opens with the file attached.

Send a document as the body of an e-mail

Click *File > Send > Document as E-mail*. Your default e-mail program opens with the contents of the document as the e-mail body.

8.4 Saving LibreOffice Files with a Password

You can save files, no matter in which LibreOffice format, with a password. Note that this offers limited protection only. For stronger protection, use encryption methods as described in *Book “Security Guide” 11 “Encrypting Partitions and Files”*. To save a file with a password, select *File > Save* or *File > Save As*. In the dialog that opens, activate the *Save with password* check box and click *OK*. After you have typed and confirmed your password, your file will be saved. The next time a user opens the file, he will be prompted for the password.

To change the password, either overwrite the same file by selecting *File > Save As* or select *File > Properties* and click *Change Password* to access the password dialog.

8.5 Customizing LibreOffice

You can customize LibreOffice to best suit your needs and working style. Toolbars, menus, and key combinations can all be reconfigured to help you more quickly access the features you use the most. You can also assign macros to application events if you want specific actions to occur when those events take place. For example, if you always work with a specific spreadsheet, you can create a macro that opens the spreadsheet and assign the macro to the Start Application event.

This section contains simple, generic instructions for customizing your environment. The changes you make are effective immediately, so you can see if the changes are what you wanted and go back and modify them if they are not. See the LibreOffice help files for detailed instructions.

To access the customization dialog in any open LibreOffice module, select *Tools > Customize*.

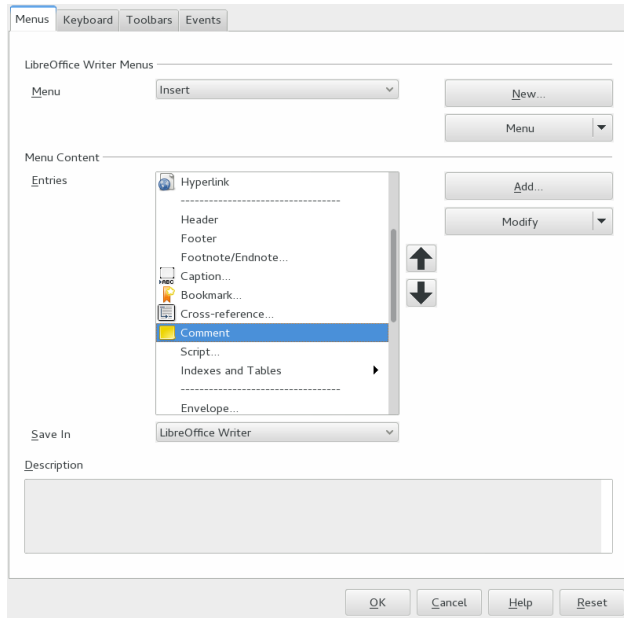


FIGURE 8.1: CUSTOMIZATION DIALOG IN WRITER

PROCEDURE 8.1: CUSTOMIZING TOOLBARS

1. In the customization dialog, click the *Toolbar* tab.
2. From the *Toolbar* drop-down box, select the toolbar you want to customize.
3. Select the check boxes next to the commands you want to appear on the toolbar, and deselect the check boxes next to the commands you do not want to appear. A short description for each command is shown at the bottom of the dialog.
4. With *Save In*, select whether to save your customized toolbar in the current LibreOffice module or in the current document. If you decide to save it in the LibreOffice module, the customized toolbar is used whenever you open that module. If you decide to save it together with the current document, the customized toolbar is used whenever you open that document.
5. Repeat to customize additional toolbars.

6. Click *OK*.

If you want to switch back to the original settings again, open the customization dialog, click the *Toolbar* drop-down box and select *Restore Default Settings*. Click *Yes* and *Reset* to proceed.

PROCEDURE 8.2: SHOWING OR HIDING BUTTONS IN THE TOOLBAR

1. Click the arrow icon at the right edge of the toolbar you want to change.
2. Click *Visible Buttons* to display a list of buttons.
3. Select the buttons in the list to enable (check) or disable (uncheck) them.

PROCEDURE 8.3: CUSTOMIZING MENUS

You can add or delete items from current menus, reorganize menus, and even create new menus.

1. Click *Tools > Customize > Menus*.
2. Select the menu you want to change, or click *New* to create a new menu.
Click *Help* for more information about the options in the *Customize* dialog.
3. Modify, add, or delete menu items as desired.
4. Click *OK*.

PROCEDURE 8.4: CUSTOMIZING KEY COMBINATIONS

You can reassign currently assigned key combinations and assign new ones to frequently used functions.

1. Click *Tools > Customize > Keyboard*.
2. Select the keys you want to assign to a combination.
3. Select a *Category* and an appropriate *function*.
4. Click *Modify* to assign the function to the key or *Delete* to remove an existing assignment.



Note: Further Information

Click *Help* for more information about the options in the *Customize* dialog.

5. Click *OK*.

PROCEDURE 8.5: CUSTOMIZING EVENTS

LibreOffice also provides ways to assign macros to events such as application start-up or the saving of a document. The assigned macro runs automatically whenever the selected event occurs.

1. Click *Tools > Customize > Events*.
2. Select the event you want to change.
Click *Help* for more information about the options in the *Customize* dialog.
3. Assign or remove macros for the selected event.
4. Click *OK*.

8.6 Changing the Global Settings

Global settings can be changed in any LibreOffice application by clicking *Tools > Options* on the menu bar. This opens the window shown in the figure below. A tree structure is used to display categories of settings.

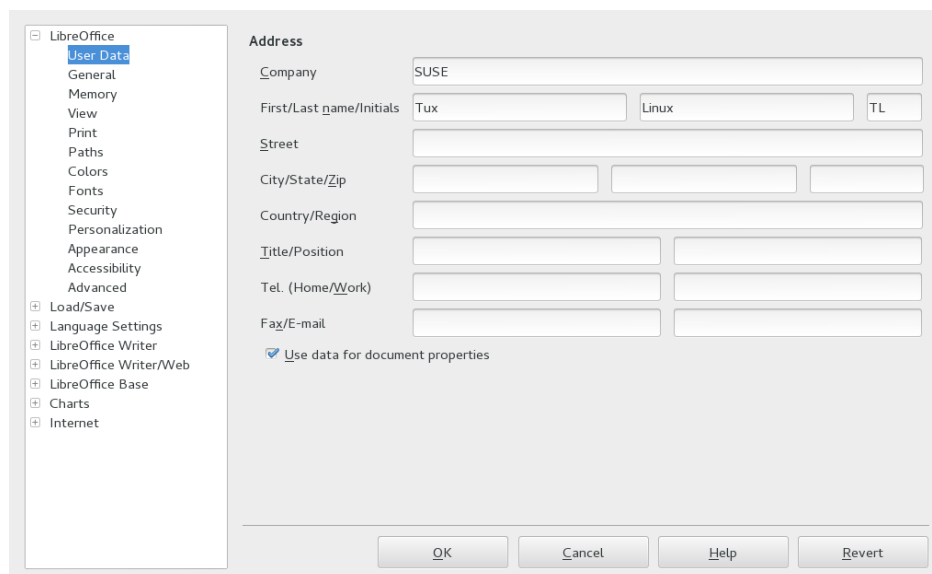


FIGURE 8.2: THE OPTIONS WINDOW

The settings categories that appear depend on the module you are working in. For example, if you are in Writer, the LibreOffice Writer category appears in the list, but the LibreOffice Calc category does not. The LibreOffice Base category appears in both Calc and Writer. The Application column in the table shows where each setting category is available.

The following table lists the settings categories along with a brief description of each category:

TABLE 8.2: GLOBAL SETTING CATEGORIES

Settings Category	Description	Application
<i>LibreOffice</i>	Various basic settings, including your user data (such as your address and e-mail), important paths, and settings for printers and external programs.	All
<i>Load/Save</i>	Includes the settings related to the opening and saving of several file types. There is a dialog for general settings and several special dialogs to define how external formats should be handled.	All
<i>Language Settings</i>	Covers the various settings related to languages and writing aids, such as your locale and spell checker settings. This is also the place to enable support for Asian languages.	All
<i>LibreOffice Writer</i>	Configures the global word processing options, such as the basic fonts and layout that Writer should use.	Writer
<i>LibreOffice Writer/ Web</i>	Changes the settings related to the HTML authoring features of LibreOffice.	Writer
<i>LibreOffice Base</i>	Provides dialogs to set and edit connections and registered databases.	Base
<i>Charts</i>	Defines the default colors used for newly created charts.	All
<i>Internet</i>	Includes the dialogs to configure any proxies and to change settings related to search engines.	All

Important: Settings Applied Globally

All settings listed in the table are applied *globally* for the specified applications. They are used as defaults for every new document you create.

8.7 Using Templates

A template is a document containing only the styles—and content—that you want to appear in every document of that type. When a document is created or opened with the template, the styles are automatically applied to that document. Templates greatly enhance the use of LibreOffice by simplifying formatting tasks for a variety of different types of documents. For example, in a word processor, you might write letters, memos, and reports, all of which look different and require different styles. Or, for example, for spreadsheets, you might want to use different cell styles or headings for certain types of spreadsheets. If you use templates for each of your document types, the styles you need for each document are always readily available.

LibreOffice comes with a set of predefined templates, and you can find additional templates on the Internet. For details, see [Section 8.9, “For More Information”](#). If you want to create your own templates, this requires some up-front planning. You need to determine how you want the document to look so you can create the styles you need in that template.

A detailed explanation of templates is beyond the scope of this section. [Procedure 8.6, “Creating LibreOffice Templates”](#) only shows how to generate a template from an existing document.

PROCEDURE 8.6: CREATING LIBREOFFICE TEMPLATES

For text documents, spreadsheets, presentations, and drawings, you can easily create a template from an existing document as follows:

1. Start LibreOffice and open or create a document that contains the styles and content that you want to re-use for other documents of that type.
2. Click *File > Templates > Save*.
3. Specify a name for the template.
4. In the *Categories* box, click the category you want to place the template in. The category is the directory where the template is stored.
5. Click *OK*.



Note: Converting Former Microsoft Word Templates

You can convert Microsoft Word templates like you would create any other Word document. See [Section 8.3.1, “Converting Documents to the LibreOffice Format”](#) for information.

8.8 Setting Metadata and Properties

When exchanging documents with other people, it is sometimes useful to store metadata like the owner of the file, received from, an URL, or other useful data. LibreOffice lets you save these metadata which can be attached to your file. This helps you track metadata which should or cannot be saved in your file. It is also useful for sorting, searching and retrieving your documents based on the metadata that you have inserted before.

As an example, we assume you want to set these properties to your file:

- A title, subject, and some keywords
- An owner of your file
- When it was received from

To attach these metadata to your document, proceed as follows:

PROCEDURE 8.7: SETTING PROPERTIES

1. Click *File* > *Properties*. A dialog opens with the following tabs:

General

This is a more overview tab where you can see the type, its location, size, when it was created and modified and other useful information. If you have a digital signature, it is also possible to digitally sign your document.

Description

Insert your title, subject, keywords and comments as you like.

Custom Properties

Custom properties specify the editor, owner, publisher, received from, and other useful metadata.

Internet

Determine if your document needs a refresh from the Internet.

Statistics

Contains an overview about your documents. Usually it lists the number of pages, tables, graphics, and others depending on the type of your document.

2. Change to the *Description* tab and insert title, subject, and your keywords.
3. Switch to the *Custom Properties* tab.
4. Click *Add*. In the properties list a new entry is created.
5. Click the pull-down menu of the first entry in the *Name* row. A list of properties appears.
6. Choose the *Owner* and insert your text in the *Value* row.
7. Repeat the previous step with the *Received from* property and a suitable value.
8. Leave the dialog with *OK*.
9. Save your file.

8.9 For More Information

LibreOffice contains extensive online help. In addition, a large community of users and developers support it. The following lists shows some of the places where you can go for additional information.

LibreOffice Online Help Menu

Extensive help on performing any task in LibreOffice.

<http://www.libreoffice.org> ↗

Home page of LibreOffice

<http://www.taming-openoffice-org.com/> ↗

Taming LibreOffice and Apache OpenOffice: books, news, tips and tricks.

<http://www.pitonyak.org/oo.php> ↗

Extensive information about creating and using macros.

<http://www.worldlabel.com/Pages/openoffice-template.htm> ↗

Various templates for creating labels with LibreOffice.

9 LibreOffice Writer

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

This chapter highlights a few key features of Writer. For more information about these features and for complete instructions for using Writer, look at the LibreOffice help or at the sources listed in [Section 8.9, “For More Information”](#).

Much of the information in this chapter can also be applied to other LibreOffice modules. For example, other modules use styles similarly to how they are used in Writer.

9.1 Creating a New Document

There are three ways to create a new Writer document.

- **From Scratch.** To create a document from scratch, click *File > New > Text Document* and a new empty Writer document is created.
- **Wizard.** To use a standard format and predefined elements for your own documents use a wizard. Click *File > Wizards > Letter* and follow the steps.
- **Templates.** To use a template, click *File > New > Templates and Documents* and choose one of the many folders (for example, Business Correspondence) and a new document based on the style of your selected template is created.

For example, to create a business letter, click *File > Wizards > Letter*. Using the wizard's dialogs, easily creates a basic document using a standard format. A sample wizard dialog is shown in [Figure 9.1](#).

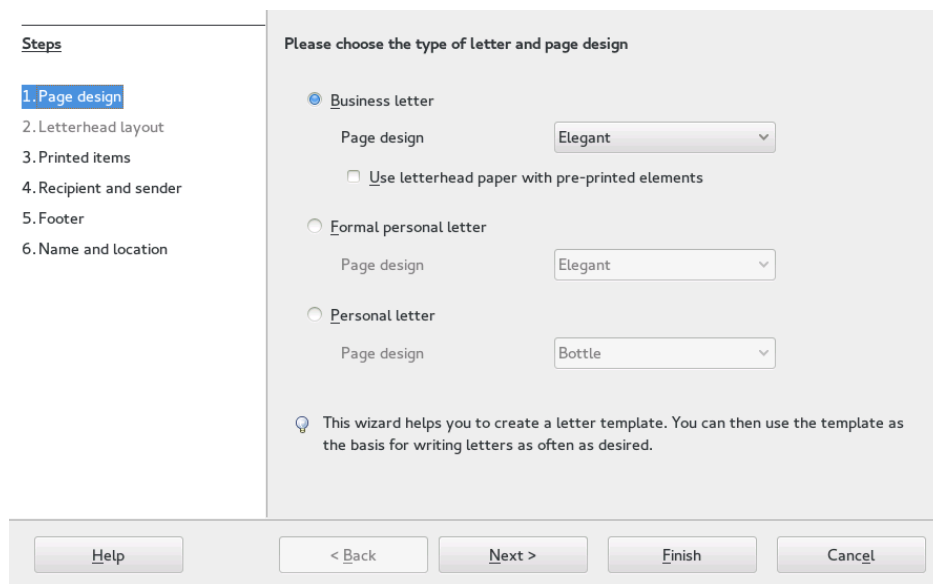


FIGURE 9.1: A LIBREOFFICE WIZARD

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

9.2 Sharing Documents with Other Word Processors

You can use Writer to edit documents created in a variety of other word processors. For example, you can import a Microsoft Word document, edit it, and save it again as a Word document. Most Word documents can be imported into LibreOffice without any problem. Formatting, fonts, and all other aspects of the document remain intact. However, some very complex documents (such as documents containing complicated tables, Word macros, or unusual fonts or formatting) might require some editing after being imported. LibreOffice can also save in many popular word processing formats. Likewise, documents created in LibreOffice and saved as Word files can be opened in Microsoft Word.

This means if you use LibreOffice in an environment where you frequently share documents with Word users, you should have little or no trouble exchanging document files. Open the files, edit them, and save them as Word files.

9.3 Formatting with Styles

Using styles, rather than any direct formatting has the following advantages:

- Gives your pages, paragraphs, texts, and lists a more consistent look.
- Easier to change your formatting later.
- Reuse and load styles from another document.
- Change one style and its properties are passed on to its descendants.

For example, if you emphasize text by selecting it and clicking the *Bold* button, but later decide you want the emphasized text to be italicized, you would need to find all bolded text and manually change it to italics. Whereas, if you use a character style, you only need to change the style from bold to italics and all text that has been formatted with that same style automatically changes from bold to italics.

LibreOffice uses styles for applying consistent formatting to various elements in a document. The following types of styles are available:

TABLE 9.1: ABOUT THE TYPES OF STYLES

Type of Style	What it Does
<i>Paragraph</i>	Applies standardized formatting to the various types of paragraphs in your document. For example, apply a paragraph style to a first-level heading to set the font and font size, spacing above and below the heading, location of the heading, and other formatting specifications.
<i>Character</i>	Applies standardized formatting for types of text. For example, if you want emphasized text to appear in italics, you can create an emphasis style that italicizes selected text when you apply the style to it.
<i>Frame</i>	Applies standardized formatting to frames. For example, if your document uses marginal note, you can create frames with specified borders, location, and other formatting so that all of your marginal notes have a consistent appearance.

Type of Style	What it Does
<i>Page</i>	Applies standardized formatting to a specified type of page. For example, if every page of your document contains a header and footer except for the first page, you can use a first page style that disables headers and footers. You can also use different page styles for left and right pages so that you have bigger margins on the insides of pages and your page numbers appear on an outside corner.
<i>List</i>	Applies standardized formatting to specified list types. For example, you can define a checklist with square check boxes and a bullet list with round bullets, then easily apply the correct style when creating your lists.

Text that is formatted with a menu option or button overrides any styles you have applied. If you use the *Bold* button to format some text and an emphasis style to format other text, then changing the style does not change the text that you formatted with the button, even after applying the style to the text you bolded with the button. You must manually disable bold in your text and then apply the style.

Likewise, if you manually format your paragraphs using *Format > Paragraph*, it is easy to end up with inconsistent paragraph formatting. This is especially true if you copy and paste paragraphs from other documents with different formatting. However, if you apply paragraph styles, formatting remains consistent. If you change a style, the change is automatically applied to all paragraphs formatted with that style.

9.3.1 The Styles and Formatting Window

The *Styles and Formatting* window (called the *Stylist* in earlier versions) is a versatile formatting tool for applying styles to text, paragraphs, pages, frames, and lists. To open this window, click *Format > Styles and Formatting* or press F11.

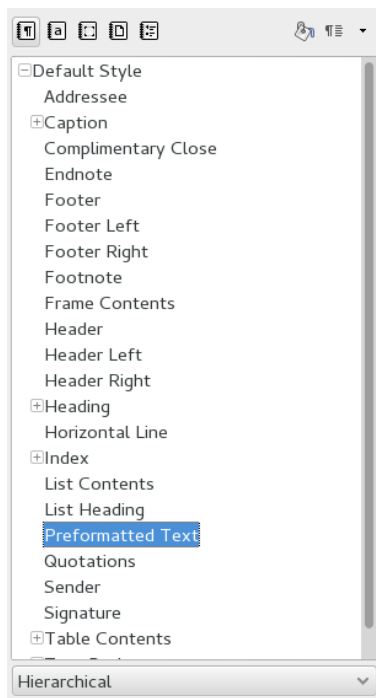


FIGURE 9.2: STYLES AND FORMATTING WINDOW



Tip: Docking And Undocking the Style and Formatting Window

By default, the *Styles and Formatting* window is a floating window; that is, it opens in its own window that you can place anywhere on the screen. To make it appear always in the same part of the Writer interface, you can dock the *Styles and Formatting* window. To do so, drag its titlebar to the left or right side of the main Writer window until a grey frame appears, then release the mouse button to position it there. To undock the window and make it appear as a floating window again, drag its icon bar to a different place.

The docking/undocking mechanism applies to some other windows in LibreOffice as well, including the Navigator.

LibreOffice comes with several predefined styles. You can use these styles as they are, modify them, or create new styles. Use the icons at the top of the window to display formatting styles for the most common elements like paragraphs, frames, pages or lists. Go on with the instructions below, to learn more about styles.

9.3.2 Applying a Style

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

9.3.3 Changing a Style

By changing styles you can change formatting throughout a document, rather than applying the change separately everywhere you want to apply the new formatting.

To change an existent style, proceed as follows:

1. In the *Styles and Formatting* window, right-click the style you want to change.
2. Click *Modify*.
3. Change the settings for the selected style.
For information about the available settings, refer to the LibreOffice online help.
4. Click *OK*.

9.3.4 Creating a Style

LibreOffice comes with a collection of styles to suit many users' needs. However, most users eventually need a style that does not yet exist and therefore, want to create their own style:

PROCEDURE 9.1: GENERAL APPROACH FOR CREATING A NEW STYLE

1. Open the *Styles and Formatting* window with *Format > Styles and Formatting* or press **F11**.
2. Make sure you are in the list of styles for the type of style you want to create.
For example, if you are creating a character style, make sure you are in the character style list by clicking the corresponding icon in the *Styles and Formatting* window.
3. Right-click in any empty space in the *Styles and Formatting* window.
4. Click *New* and the style dialog opens. The *Organizer* tab is preselected.

5. First configure the three most important entries:

Name

The name of your style. Insert any name you like.

Next Style

The style that follows your style. When you press **Enter** the selected style is used.

Linked With

The style that your style depends on. If the selected style is changed, your style changes as well. For example, if you want to make consistent headers create a “parent” header style and subsequent headers depending on it. This is useful as you only change the properties that need to be different, for example, font size. Or choose to use *None*.

For details about the style options available in any tab, click that tab and then click *Help*.

6. Confirm with *OK* to close the window.

9.3.4.1 Example: Defining a Note Style

Let us assume, you need a note with a different background and borders. To create this styles, proceed as follows:

PROCEDURE 9.2: CREATING A NOTE STYLE

1. Press **F11**. The *Styles and Formatting* window opens.
2. Make sure you are in the *Paragraph Style* list. The first icon (looks like ¶) must be activated.
3. Right-click in any empty space in the *Styles and Formatting* window and select *New*.
4. Enter the following parameters in the *Organizer* tab:

<i>Name</i>	Note
<i>Next Style</i>	Note
<i>Linked with</i>	- None -
<i>Category</i>	Custom Styles

5. Change the indentation in the *Indents & Spacing* tab, labeled with *Before Text*. If you want more space above and below, change the values in the *Above paragraph* and *Below paragraph* accordingly.
6. Switch to the *Background* tab and change the color of the background.
7. Switch to the *Borders* tab and determine your line arrangements, line style, color and other parameters.
8. Confirm with *OK* to close the window.
9. Select your text in your document and double-click the *Note* style. Your style parameters are applied to the text.

9.3.4.2 Example: Defining an Even-Odd Page Style

If you print your documents, it is a good idea to create even and odd pages. To create page styles for this, proceed as follows:

PROCEDURE 9.3: CREATE AN EVEN (LEFT) PAGE STYLE

1. Press **F11**. The *Styles and Formatting* window opens.
2. Make sure you are in the *Page Style* list.
3. Right-click in any empty space in the *Styles and Formatting* window and select *New*.
4. Enter the following parameters in the *Organizer* tab:

<i>Name</i>	Left Page
<i>Next Style</i>	Leave that empty, it will be changed later
<i>Linked with</i>	not applicable
<i>Category</i>	not applicable

5. Change additional parameters as you like in the other tabs. Probably you want to adapt the page format and margins (*Page* tab) or any headers and footers.
6. Confirm with *OK* to close the window.

PROCEDURE 9.4: CREATE AN ODD (RIGHT) PAGE STYLE

1. Follow the instruction in *Procedure 9.3, "Create an Even (Left) Page Style"* but use the string Right Page in the *Organizer* tab.
2. Select the entry Left Page from the *Next Style* pop-up menu.
3. Choose the same parameters as you did in the left page style. If you used different sizes for the left and right margin of your even page, you need to adapt these values in your odd pages as well.
4. Confirm with *OK* to close the window.

Then connect the left page style with the right page style:

PROCEDURE 9.5: CONNECT THE RIGHT PAGE STYLE WITH THE LEFT PAGE STYLE

1. Right-click the *Left Page* entry and choose *Modify*.
2. Choose *Right Page* from the *Next Style* pop-up menu.
3. Confirm with *OK* to close the window.

To attach your style, make sure your page is a left (even) page and double-click *Left Page*. Whenever your text exceeds the page limit, the text is automatically broken into a right page and vice versa.

9.4 Working with Large Documents

You can use Writer to work on large documents. Large documents can be either a single file or a collection of files assembled into a single document.

9.4.1 Navigating in Large Documents

The Navigator tool displays information about the contents of a document. It also lets you quickly jump to different elements. For example, you can use the Navigator to get a quick overview of all images included in the document.

To open the Navigator, click *View > Navigator* or press **F5**. The elements listed in the Navigator vary according to the document loaded in Writer.

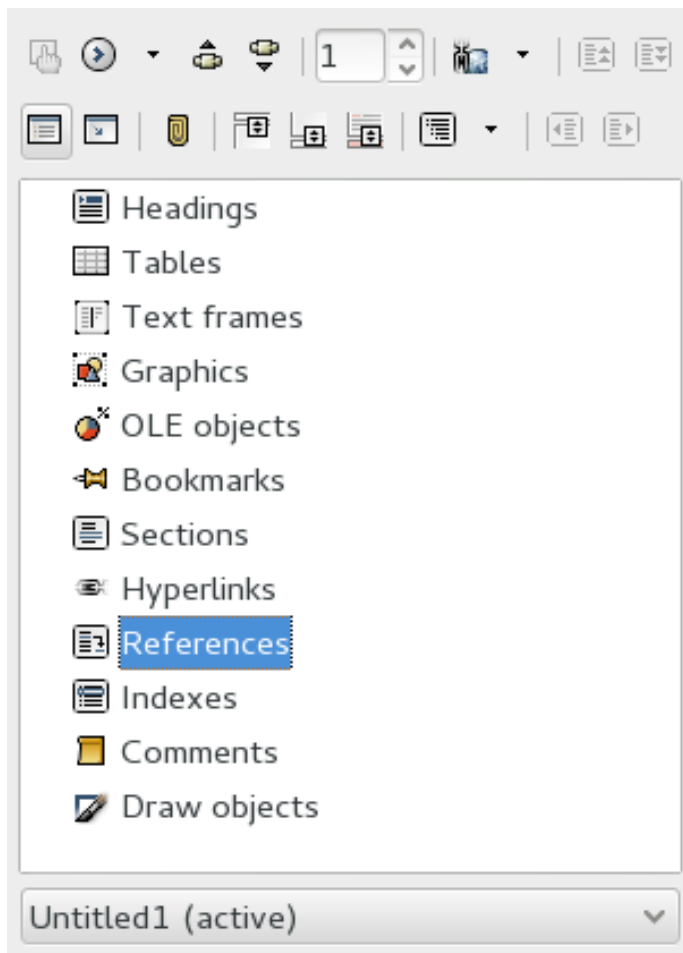


FIGURE 9.3: NAVIGATOR TOOL IN WRITER

Click an item in the Navigator to jump to that item in the document.

9.4.2 Using Master Documents

If you are working with a very large document, such as a book, you might find it easier to manage the book with a master document, rather than keeping the book in a single file. A master document enables you to quickly apply formatting changes to a large document or to jump to each subdocument for editing.

A master document is a Writer document that serves as a container for multiple Writer files. You can maintain chapters or other subdocuments as individual files collected in the master document. Master documents are also useful if multiple users are working on a single document.

You can separate each user's section of the document into subdocuments collected in a master document, allowing multiple writers to work on their subdocuments at the same time without fear of overwriting others' work.

PROCEDURE 9.6: CREATING A MASTER DOCUMENT

1. Click *New > Master Document*.
or
Open an existing document and click *File > Send > Create Master Document*.
2. Select *Insert* in the navigator window and hold the button.
3. Move the mouse to *File* and release the mouse button.
4. Select a file to add an existing file to the master document.

To create and add a new document to the master document, choose *Insert > New Document*. The new file opens in another LibreOffice Writer window. The content of the file will be integrated in the master document. To save the file as part of the master document, switch back to the master, enter the file name into the open file menu and click *OK*.

To enter some text directly into the master document, select *Insert > Text*.

The LibreOffice help files contain more complete information about working with master documents. Look for the topic entitled *Using Master Documents and Subdocuments*.



Tip: Styles and Templates in Master Documents

The styles from all of your subdocuments are imported into the master document. To ensure that formatting is consistent throughout your master document, you should use the same template for each subdocument. Doing so is not mandatory. However, if subdocuments are formatted differently, you might need to do some reformatting to successfully bring subdocuments into the master document without creating inconsistencies. For example, if two documents imported into your master document include different styles with the same name, the master document will use the formatting specified for that style in the first document you import.

9.5 Using Writer as an HTML Editor

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

PROCEDURE 9.7: CREATING AN HTML PAGE

1. Click *File* > *New* > *HTML Document*.
2. Press **F11** to open the *Styles and Formatting* window.
3. Click the **arrow** at the bottom of the *Styles and Formatting* window.
4. Select *HTML Styles*.
5. Create your HTML document, using the styles to tag your text.
6. Click *File* > *Save As*.
7. Select the location where you want to save your file, name the file, and select *HTML Document (.html)* from the *Filter* list.
8. Click *OK*.

If you prefer to edit HTML code directly, or if you want to see the HTML code created when you edited the HTML file as a Writer document, click *View* > *HTML Source*. In HTML Source mode, the *Formatting and Styles* list is not available.

The first time you switch to HTML Source mode, you are prompted to save the file as HTML, if you have not already done so.

9.6 For More Information

<http://www.libreoffice.org/get-help/documentation/> 

10 LibreOffice Calc

Calc is the LibreOffice spreadsheet and data plotting module. Spreadsheets consist of a number of sheets, containing cells which can be filled with elements like text, numbers, or formulas. A formula can manipulate data from other cells to generate a value for the cell in which it is inserted. Calc also allows you to define ranges, filter and sort the data or creates charts from the data to present it graphically. By using DataPilots, you can combine, analyze or compare larger amounts of data.

As with the entire LibreOffice suite, Calc can be used across a variety of platforms. It provides a number of exchange formats (including export to PDF documents), and can also read and save files in Microsoft Excel format. Its interoperability is constantly ameliorated.

This chapter can only introduce some very basic Calc functionalities. For more information and for complete instructions, look at the LibreOffice help or at the sources listed in [Section 8.9, “For More Information”](#).



Note: VBA Macros

Calc can process many VBA macros in Excel documents; however, support for VBA macros is not yet complete. When opening an Excel spreadsheet that makes heavy use of macros, you might discover that some do not work.

10.1 Creating a New Document

There are two ways to create a new Calc document:

- **From Scratch.** To create a document from scratch, click *File > New > Spreadsheet* and a new empty Calc document is created.
- **Templates.** To use a template, click *File > New > Templates and Documents* and open *Finances*. You can see a list of Spreadsheet templates. Select the one that fits your needs and your new document is created based on the style of your selected template.

Access the individual sheets by clicking the respective tabs at the bottom of the window.

Enter data in the cells as desired. To adjust the appearance, either use the *Formatting* toolbar or the *Format* menu—or define styles as described in [Section 10.2, “Using Formatting and Styles in Calc”](#). Use the *File* menu or the relevant buttons in the toolbar to print and save your document.

10.2 Using Formatting and Styles in Calc

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

PROCEDURE 10.1: CREATING A STYLE

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

PROCEDURE 10.2: MODIFYING A STYLE

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

To apply a style to specific cells, select the cells you want to format. Then double-click the style you want to apply in the *Styles and Formatting* window.

10.3 Working With Sheets

Sheets are a good method to organize your calculations. For example, the accounting for your business is much clearer if you create a sheet for each month.

To insert a new sheet in your spreadsheet, do the following:

PROCEDURE 10.3: INSERTING NEW SHEETS

1. Select *Insert > Sheet* from the main menu. A dialog box opens.

2. Decide whether the new sheet should be positioned before or after the selected sheet.
3. If you want to create a new sheet, make sure the *New Sheet* radio button is activated. Enter the number of sheets and the sheet name. Skip the next step.
4. If you want to import a sheet from another file, do the following otherwise skip this step:
 - a. Select *From file* and click *Browse*
 - b. Select the file name and confirm with *OK*. All the sheet names are now displayed in the list.
 - c. Select the sheet names you want to import by holding the **Shift** key.
 - d. Confirm with *OK* to import the sheet names you selected.

To rename a sheet, right-click a sheet in the sheet tab and select *Rename Sheet*.

To delete the current sheet, select *Edit > Sheet > Delete* and confirm with *Delete Sheets*. It is possible to delete more than one sheet by holding the **Shift** key and selecting the sheets you want to delete in the sheet tab. Right-click and choose *Delete Sheet* and the same dialog appears. Confirm with *Delete Sheets*.

10.4 Conditional Formatting

Conditional formatting is a useful feature to highlight certain values in your spreadsheet. For example, define a condition and if the condition is true, a style is applied to each cell that fulfills this condition.



Note: Enable AutoCalculate

Before you apply conditional formatting, choose *Tools > Cell Contents > Autocalculate*. You should see a check mark in front of *AutoCalculate*.

Proceed as follows:

PROCEDURE 10.4: USING CONDITIONAL FORMATTING

1. Define a style first. This style is applied to each cell when your condition is true. Use *Format > Styles and Formatting* or press **F11**. For more information, see [Procedure 10.1, "Creating a Style"](#). Confirm with *OK*.

2. Select the cell range where you want to apply your condition.
3. Select *Format > Conditional Formatting > Conditional Formatting* from the main menu. A dialog opens.
4. Click *Add* and determine your condition. You can define up to three conditions. Each of the three conditions can be enabled or disabled independently. A condition can operate in “cell mode” or in “formula mode”:

Cell Mode

The condition is tested if it matches a certain cell value. Beside the first pull-down menu, you can select the operator like equal to, less than, greater than, and so forth.

Formular Mode

The condition is tested if a certain formular returns true.

5. Depending on the mode, enter:
 - a. **Cell Mode.** Select the operator and the value of the cell.
 - b. **Formular Mode.** Select the function which you want to test.
6. Choose the style you want to apply when this condition is true or click *New Style* to define a new appearance.
7. Repeat the previous steps, if you need additional conditions.
8. Confirm with *OK*.

Now the style of your cells has changed.

10.5 Grouping and Ungrouping Cells

Grouping a cell range helps to fold your spreadsheet into parts. This makes your spreadsheets more readable as you can display only the parts you are currently interested in. It is possible to group rows or columns and nest groups in other groups.

To group a range, proceed as follows:

PROCEDURE 10.5: GROUPING A SELECTED CELL RANGE

1. Select a cell range in your spreadsheet.

2. Select *Data > Group and Outline > Group*. A dialog box appears.
3. Decide if you want to group your selected range as row or as column. Confirm with *OK*.

After grouping selected cells, a line indicating the grouped cell range appears in the upper-left margin. Fold or unfold the cell range with the + and - icons. The numbers in the margins display the depth of your groups and can be clicked too.

To ungroup a cell range, click into a cell which belongs to a group and select *Data > Group and Outline > Ungroup*. The line in the margin disappears.

10.6 Freezing Rows or Columns as Headers

If you have a spreadsheet with lots of data, scrolling makes your header usually disappear. LibreOffice locks rows or columns or both so it remains even if you scroll around.

To freeze a single row or a single column, proceed as follows:

PROCEDURE 10.6: FREEZING A SINGLE ROW OR COLUMN

1. To freeze a row, click the header of the row in the left strip.
To freeze a column, click the header of the column. The header of the column is the strip under the icon bar, labeled as A, B, C and so forth.
2. Select *Window > Freeze*. A dark line appears, indicating where the row or column remains.

It is also possible to freeze both, rows and columns. Proceed as follows:

PROCEDURE 10.7: FREEZING ROW AND COLUMN

1. Click into the cell to the right of the column and below the row you want frozen. For example, if your header occupies the space from A1 to B3 then click into cell C4.
2. Select *Window > Freeze*. A dark line appears, indicating where the row or column remains.

If you want to revert the freezing, select *Window > Freeze* and the check mark disappears.

10.7 For More Information

<http://www.libreoffice.org/get-help/documentation/> 

11 LibreOffice Impress, Base, Draw, and Math

Besides LibreOffice Writer and LibreOffice Calc, LibreOffice also includes the modules Impress, Base, Draw, and Math. With these you can create presentations, design databases, draw up graphics and diagrams, and create mathematical formulas.

11.1 Using Presentations with Impress

Use LibreOffice Impress to create presentations for screen display or printing, such as slide shows or transparencies. If you have used other presentation software, you can move comfortably to Impress, which works very similarly to other presentation software.

Impress can open and save Microsoft Powerpoint presentations. This means you can exchange presentations with Powerpoint users, as long as you save your presentations in Powerpoint format.

11.1.1 Creating a Presentation

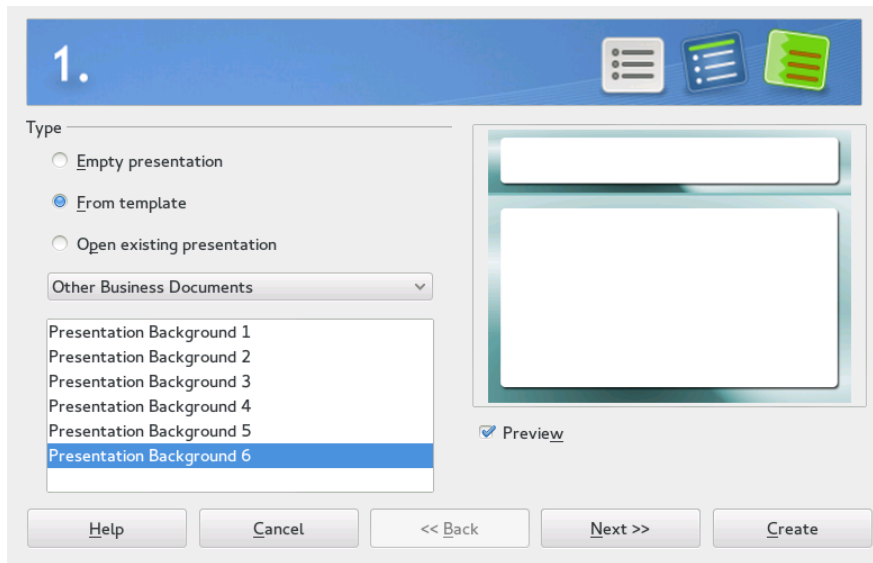
There are three ways to create a new Impress document:

- **From Scratch.** To create a document from scratch, click *File > New > Presentation* and a new empty Impress document is created.
- **Wizard.** To use a standard format and predefined elements for your documents use a wizard. Click *File > Wizards > Presentation* and follow the steps.
- **Templates.** To use a template, click *File > New > Templates and Documents* and choose one file from the *Presentation Backgrounds* folder. A new document based on the style of your selected template is created.

The following procedure describes how to create a presentation by using the wizard. Proceed as follows:

1. Start LibreOffice.
2. Select *File > Wizards > Presentation*

3. Choose *From template* and select *Presentation Backgrounds* from the pop-up menu to set your preferred background and click *Next*.



4. Select a slide design. You can choose from a variety of backgrounds and ready-made presentations. To create your own design, select *<Original>* from the list.
5. Select an output medium. The output medium is the form the final presentation will take, such as an overhead sheet, paper, or a screen slide show, among other choices. Select *Preview* for a thumbnail showing your choices. If all options are set according to your wishes, click *Next*.
6. If you want to use effects for slide transitions, select the *Effect* you want to use and specify the *Speed*.
7. Either use the default presentation type or choose *Automatic* to specify the amount of time each page displays and the length of the pause between presentations.
8. If all options are set according to your wishes, click *Create*.

The presentation opens, ready for editing.

11.1.2 Using Master Pages

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

Slide Master

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

Notes Master

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

11.1.2.1 Creating a Slide Master

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

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



Tip

When you have created all of the slide masters you want to use in your presentations, you can save them in an Impress template. Then, any time you want to create presentations that use those slide masters, open a new presentation with your template.

11.1.2.2 Applying a Slide Master

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

1. Open your presentation.
2. (Optional) If you want to apply the slide master to multiple slides, but not to all slides. Select the slides that you want to use that slide master applied to.
To select multiple slides, press **Ctrl** in the *Slides Pane* while clicking the slides you want to use.
3. In the Tasks Pane, open the *Master Pages* and click the master page you want to apply. The slide master is applied to the corresponding page(s).
If you do not see the *Task Pane*, click *View > Task Pane*.

11.2 Using Databases with Base

LibreOffice includes a database module: Base. Use Base to design a database to store many different kinds of information, from a simple address book or recipe file to a sophisticated document management system.

Tables, forms, queries, and reports can be created manually or by using convenient wizards. For example, the Table Wizard contains a number of common fields for business and personal use. Databases created in Base can be used as data sources, such as when creating form letters.

It is beyond the scope of this document to detail database design with Base. More information can be found at the sources listed in [Section 8.9, "For More Information"](#).

11.2.1 Creating a Database Using Predefined Options

Base comes with several predefined database fields to help you create a database. A wizard guides you through the steps to create a new database. The steps in this section are specific to creating an address book using predefined fields, but it should be easy to follow them to use the predefined fields for any of the built-in database options.

The process for creating a database can be broken into several subprocesses:

1. *Creating the Database*
2. *Setting Up the Database Table*

3. Creating a Form



4. Modifying the Form

11.2.1.1 Creating the Database

1. Start LibreOffice Base.
2. Select *Create a new database*. Proceed with *Next*.
3. Click *Yes, register the database for me* to make your database information available to other LibreOffice modules and select the check boxes to *Open the database for editing* and *Create tables using the table wizard*. Then click *Finish*.
4. Browse to the directory where you want to save the database, specify a name for the database, then click *OK*.

11.2.1.2 Setting Up the Database Table

After you have created the database, if you have selected the *Create tables using the table wizard* check box, the table wizard opens. If you have not, click the *Use Wizard to Create Table* link in the *Tasks* area. Next, define the fields you want to use in your database table.

1. In the *Table Wizard*, click *Personal*.
The *Sample tables* list changes to show the predefined tables for personal use. If you had clicked *Business*, the list would contain predefined business tables.
2. In the *Sample tables* list, click *Addresses*.
The available fields for the predefined address book appear in the *Available fields* menu.
3. In the *Available fields* menu, click the fields you want to use in your address book.
You can select one item at a time, or you can shift-click multiple items to select them.
4. Click the single arrow icon to move the selected items to the *Selected fields* menu.
To move all available fields to the *Selected fields* menu, click the double right-arrow.
5. Use the  and  keys to adjust the order of the selected fields, then click *Next*.
The fields appear in the table and forms in the order in which they are listed.

6. Make sure each of the fields is defined correctly.

You can change the field name, type, maximum characters and whether it is a required field. For this example, leave the settings as they are, then click *Next*.

7. Click *Create a primary key*, click *Automatically add a primary key*, click *Auto value*, then click *Next*.

11.2.1.3 Creating a Form

Next, create the form to use when entering data into your address book.

1. In the *Form Wizard*, click the double right-arrow icon to move all available fields to the *Fields in the form* list, then click *Next*.
2. Select *Add Subform* if you want to add a sub form, then click *Next*.
For this example, accept the default selections.
3. Select how you want to arrange your form, then click *Next*.
4. Select *The form is to display all data* and leave all of the check boxes empty, then click *Next*.
5. Apply a style and field border, then click *Next*.
For this example, accept the default selections.
6. Name the form, select the *Modify the form* option, then click *Finish*.

11.2.1.4 Modifying the Form

After the form has been defined, you can modify the appearance of the form to suit your preferences.

1. Close the form that opened when you finished the previous step.
2. In the main window for your database, right-click the form you want to modify (there should be only one option), then click *Edit*.
3. Arrange the fields on the form by dragging them to their new locations.
For example, move the First Name field so it appears to the right of the Last Name field, and then adjust the locations of the other fields to suit your preference.
4. When you have finished modifying the form, save it and close it.

11.2.1.5 What's Next?

After you have created your database tables and forms, you are ready to enter your data. You can also design queries and reports to help sort and display the data.

Refer to LibreOffice online help and other sources listed in [Section 8.9, "For More Information"](#) for additional information about Base.

11.3 Creating Graphics with Draw

Use LibreOffice Draw to create graphics and diagrams. You can save your drawings in today's most common formats and import them into any application that lets you import graphics, including the other LibreOffice modules. You can also create Flash versions of your drawings.

PROCEDURE 11.1: CREATING A GRAPHIC

1. Start LibreOffice Draw.
2. Use the toolbar at the bottom of the window to create a graphic.
3. Save the graphic.

To embed an existing Draw graphic into a LibreOffice document, select *Insert > Object > OLE Object*. Select *Create from file* and click *Search* to navigate to the Draw file to insert. If you insert a file as OLE object, you can easily edit the object later by double-clicking it.

PROCEDURE 11.2: OPENING DRAW FROM OTHER LIBREOFFICE MODULES

One particularly useful feature of Draw is the ability to open it from other LibreOffice modules so you can create a drawing that is automatically imported into your document.

1. From a LibreOffice module (for example, from Writer), click *Insert > Object > OLE Object > LibreOffice 3.x Drawing > OK*.

This opens Draw.

2. Create your drawing.
3. Click in your document, outside the Draw frame.

The drawing is automatically inserted into your document.

11.4 Creating Mathematical Formulas with Math

It is usually difficult to include complex mathematical formulas in your documents. To make this task easier, the LibreOffice Math equation editor lets you create formulas using operators, functions, and formatting assistants. You can then save those formulas as an object that can be imported into other documents. Math functions can be inserted into other LibreOffice documents like any other graphic object.



Note: Math is For Creating Mathematical Formulas

Math is not a calculator. The functions it creates are graphical objects. Even if they are imported into Calc, these functions cannot be evaluated.

To create a formula proceed as follows:

1. Start LibreOffice Math.
2. Click *File > New > Formula*. The formula window opens.
3. Enter your formula in the lower part of the window. For example, the binomial theorem in LibreOffice Math syntax is:

$$(a + b)^2 = a^2 + 2 a b + b^2$$

The result is displayed in the upper part of the window.

4. Use the *Formula Elements* window or right-click the lower part of the window to insert other terms. If you need symbols, use *Tools > Catalog* to, for example, insert Greek or other special characters.
5. Save your document.

The result is shown in *Figure 11.1, “Mathematical Formula in LibreOffice Math”*:

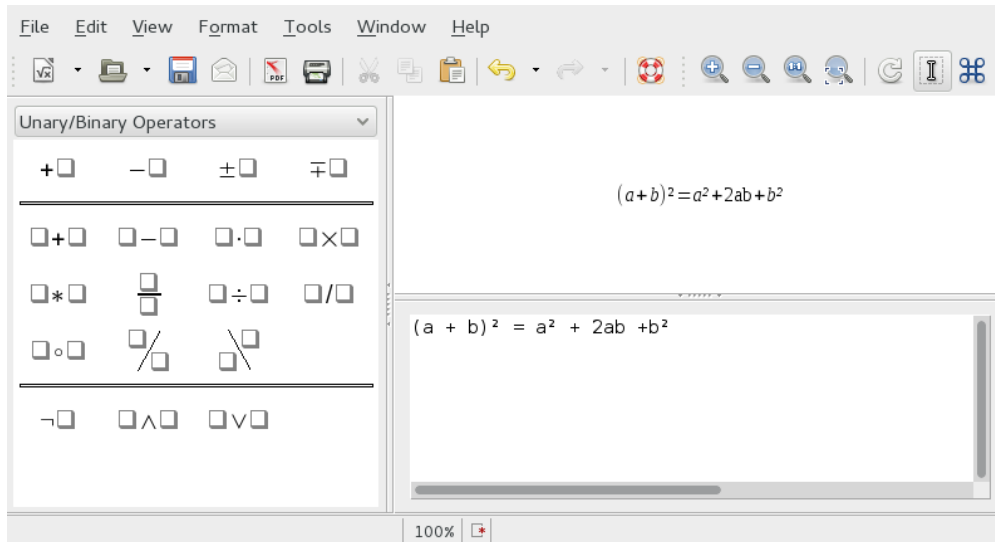


FIGURE 11.1: MATHEMATICAL FORMULA IN LIBREOFFICE MATH

It is possible to include your formula in Writer, for example. To do so, proceed as follows:

1. Create a new Writer document or open an already existing one.
2. Select *Insert > Object > OLE Object* in the main menu. The *Insert OLE Object* window appears.
3. Select *Create from file*.
4. Click *Search* to locate your formula. If needed, you can activate *Link to file*.
5. Confirm with *OK* and your formula is inserted at the current cursor position.

11.5 For More Information

<http://www.libreoffice.org/get-help/documentation/> 

IV Information Management

- 12 Evolution: E-Mailing and Calendaring **81**
- 13 Seahorse: Signing and Encrypting Data **95**

12 Evolution: E-Mailing and Calendaring

Evolution™ makes the tasks of storing, organizing, and retrieving your personal information easy, so you can work and communicate more effectively with others. It is a highly evolved groupware program and an integral part of the Internet-connected desktop.

Evolution can help you work in a group by handling e-mail, addresses, and other contact information, and one or more calendars. It can do that on one or several computers, connected directly or over a network, for one person or for large groups.

With Evolution, you can accomplish your most common daily tasks. For example, it takes only one or two clicks to enter appointment or contact information sent to you by e-mail, or to send e-mail to a contact or appointment. People who get lots of e-mail will appreciate advanced features like search folders, which let you save searches as though they were ordinary e-mail folders.

This chapter introduces you to Evolution and helps you get started. For more details, refer to the Evolution documentation.

- *Section 12.1, “Starting Evolution for the First Time”*
- *Section 12.2, “Using Evolution: An Overview”*

12.1 Starting Evolution for the First Time

To start the Evolution client click *Applications > Internet > Evolution*, or type **evolution** in a terminal window.

12.1.1 Setup Assistant

The first time you run Evolution, it creates a directory called .evolution in your home directory, where all the local data is stored. Then, it opens a setup assistant to help you set up e-mail accounts and import data from other applications.

The *Evolution Account Assistant* helps you to provide all the required information.

12.1.1.1 Restoring from a Backup File

When the *First-Run Assistant* starts, the Welcome page is displayed. Click *Forward* to proceed to the *Restore from Backup* window. If you previously backed up your Evolution configuration and wish to restore it in this new installation, it is the right time to do so: check *Restore Evolution from the Backup File* and select the backup file in the file chooser dialog. Or click *Forward* and proceed to the *Identity Window*.

12.1.1.2 Defining Your Identity

The *Identity Window* is the next step in the assistant.

1. Type your full name in the *Full Name* field.
2. Type your e-mail address in the *E-mail Address* field.
3. (Optional) Type a reply to address in the *Reply-To* field.
Use this field if you want replies to e-mails sent to a different address.
4. (Optional) Type your organization name in the *Organization* field.
This is the company where you work, or the organization you represent when you send e-mails.
5. Click *Continue*.

12.1.1.3 Receiving Mail

The *Receiving E-mail* option lets you determine the server where you want to receive your e-mail. You need to specify the type of server you want to receive mail from. If you are not sure about the type of server, contact your system administrator or Internet Service Provider (ISP).

Select a server type in the *Server Type* list. The following is a list of available server types:

IMAP: Keeps the e-mail on your server so you can access your e-mail from multiple systems.

POP: Downloads your e-mail to your hard disk for permanent storage, freeing up space on the e-mail server.

USENET News: Connects to the news server and downloads a list of available news digests.

Local Delivery: If you want to move e-mail from the spool and store it in your home directory, you need to provide the path to the mail spool you want to use. If you want to leave mail in your system's spool files, choose the Standard Unix Mbox Spool File option instead.

MH Format Mail Directories: If you want to download your e-mail using mh or another MH-style program, you need to provide the path to the mail directory you want to use.

Maildir Format Mail Directories: If you download your e-mail using Qmail or another Maildir-style program, you should use this option. You need to provide the path to the mail directory you want to use.

Standard Unix Mbox Spool File or Directory: If you want to read and store e-mail in the mail spool on your local system, choose this option. You need to provide the path to the mail spool you want to use.

None: If you do not plan to check e-mail with this account, select this option. There are no configuration options.

12.1.1.3.1 Remote Configuration Options

If you have selected IMAP, POP, or USENET News as your server, you need to specify additional information.

1. Type the host name of your e-mail server in the *Server* field.
If you are not sure about the host name, contact your system administrator.
2. Type your user name for the account in the *User name* field.
3. Select a secure (SSL) connection.
If your server supports secure connections, enable this security option. If you are not sure about secure connections, contact your system administrator.
4. Select your authentication type in the *Authentication* list. click *Check for Supported Types* to have Evolution check for supported types. Some servers do not announce the authentication mechanisms they support, so clicking this button is not a guarantee that available mechanisms actually work.
If you are not sure about the required server type, contact your system administrator.
5. Select if you want Evolution to remember your password.

6. Click *Forward*.

12.1.1.3.2 Local Configuration Options

If you selected *Local Delivery*, *MH-Format Mail Directories*, *Maildir-Format Mail Directories*, or *Standard Unix Mbox Spool File or Directory*, you must specify the path to the local files in the path field.

12.1.1.4 Receiving Options

After you have selected a mail delivery mechanism, you can set some preferences for its behavior.

12.1.1.4.1 IMAP Receiving Options

If you select IMAP as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail.
If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to check for new messages in all folders.
3. Select if you want to check for new messages in subscribed folders.
4. Select if you want Evolution to use custom commands to connect to Evolution.
If you select this option, specify the custom command you want Evolution to use.
5. Select if you want Evolution to show only subscribed folders.
Subscribed folders are folders that you have chosen to receive mail from by subscribing to them.
6. Select if you want Evolution to override server-supplied folder namespaces.
By choosing this option you can rename the folders that the server provides. If you select this option, you need to specify the namespace to use.
7. Select if you want to apply filters to new messages in the INBOX folder.

8. Select if you want to check new messages for junk content.
9. Select if you want to check for junk messages in the INBOX folder.
10. Select if you want to automatically synchronize remote mail locally.
11. Click *Forward*.

12.1.1.4.2 POP Receiving Options

If you select POP as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail. If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to leave messages on the server.
3. Select if you want to delete messages after specified number of days.
4. Select if you want to disable support for all POP3 extensions.
5. Click *Forward*.

12.1.1.4.3 USENET News Receiving Options

If you select USENET News as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail. If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to show folders in short notation.
For example, comp.os.linux would appear as c.o.linux.
3. Select if you want to show relative folder names in the subscription dialog box.
If you select to show relative folder names in the subscription page, only the name of the folder is displayed. For example the folder evolution.mail would appear as evolution.
4. Click *Forward*.

12.1.1.4.4 Local Delivery Receiving Options

If you select Local Delivery as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail. If you select this option, you need to specify how often Evolution should check for new messages.
2. Click *Forward*.

12.1.1.4.5 MH-Format Mail Directories Receiving Options

If you select MH-Format Mail Directories as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail. If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to use the .folders summary file.
3. Click *Forward*.

12.1.1.4.6 Maildir-Format Mail Directories Receiving Options

If you select Maildir-Format Mail Directories as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail. If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to apply filters to new messages in the INBOX folder.
3. Click *Forward*.

12.1.1.4.7 Standard Unix Mbox Spool or Directory Receiving Options

If you select Standard Unix Mbox Spool or Directory as your receiving server type, you need to specify the following options:

1. Select if you want Evolution to automatically check for new mail. If you select this option, you need to specify how often Evolution should check for new messages.
2. Select if you want to apply filters to new messages in the INBOX folder.
3. Select if you want to store status headers in Elm, Pine, and Mutt formats.
4. Click *Forward*.

12.1.1.5 Sending Mail

Now that you have entered information about how you plan to get mail, Evolution needs to know about how you want to send it.

- Select a server type from the *Server Type* list.

The following server types are available:

Sendmail: Uses the Sendmail program to send mail from your system. Sendmail is more flexible, but is not as easy to configure, so you should select this option only if you know how to set up a Sendmail service.

SMTP: Sends mail using a separate mail server. This is the most common choice for sending mail. If you choose SMTP, there are additional configuration options.

12.1.1.5.1 SMTP Configuration

1. Type the host address in the *Server* field.

If you are not sure what your host address is, contact your system administrator.

2. Select if your server requires authentication.

If you selected that your server requires authentication, you need to provide the following information:

- a. Select your authentication type in the *Authentication* list.

or

Click *Check for Supported Types* to have Evolution check for supported types. Some servers do not announce the authentication mechanisms they support, so clicking this button is not a guarantee that available mechanisms actually work.

- b. Type your user name in the *User name* field.
 - c. Select if you want Evolution to remember your password.
 3. Select if you use a secure connection (SSL or TLS).
 4. Click *Forward*.

12.1.1.6 Account Management

Now that you have finished the e-mail configuration process you need to give the account a name. The name can be any name you prefer. Type your account name on the *Name* field, then click *Forward*.

12.2 Using Evolution: An Overview

Now that the first-run configuration has finished, you are ready to begin using Evolution. Here is a quick explanation of what is happening in your main Evolution window.

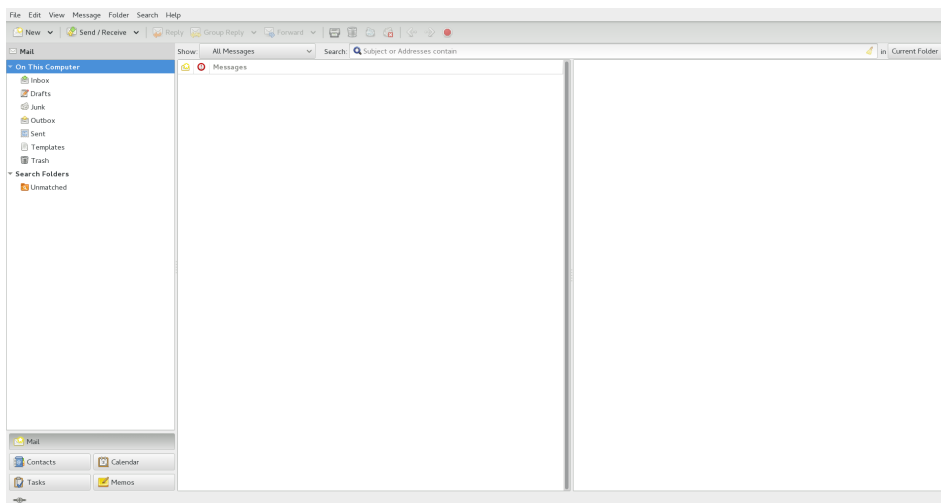


FIGURE 12.1: EVOLUTION WINDOW

Menu Bar

The menu bar gives you access to nearly all of Evolution features.

Folder List

The folder list gives you a list of the available folders for each account. To see the contents of a folder, click the folder name. The contents are displayed in the e-mail list.

Toolbar

The toolbar gives you fast and easy access to the frequently used features in each component.

Search Tool

The search tool lets you search for e-mails either in the current account or in all accounts. You can filter e-mails, contacts, calendar entries and tasks using different criteria. The Search tool can also save frequently used searches to a search folder.

Message List

The message list displays a list of e-mails that you have received. The radio button above the list lets you view messages according to predefined and custom labels. To view an e-mail in the preview pane, select the e-mail.

Shortcut Bar

The shortcut bar lets you switch between folders. At the bottom of the shortcut bar there are tool buttons that let you switch tools, and above that is a list of all the available folders for the current tool. If you have the Evolution Connector for Microsoft Exchange installed, you have an Exchange button in addition to buttons for the other tools.

Statusbar

The statusbar periodically displays a message, or tells you the progress of a task. This most often happens when you are checking or sending e-mail. These progress queues are shown in the previous figure. The Online/Offline indicator is here, too, in the lower left of the window.

Preview Pane

The preview pane displays the contents of the e-mails that are selected in the e-mail list.

12.2.1 The Menu Bar

The menu bar's contents always provide all the possible actions for any given view of your data. If you are looking at your INBOX, most of the menu items relate to e-mail. Some content relates to other components of Evolution and some, especially those in the File menu, relates to the application as a whole.

File: Anything related to a file or to the operations of the application usually falls under this menu, such as creating things, saving them to disk, printing them, and quitting the program itself.

Edit: Contains useful tools that help you edit text and move it around. Lets you access the settings and configuration options in the Edit menu.

View: Lets you decide how Evolution should look. Some of the features control the appearance of Evolution as a whole, and others the way a particular kind of information appears.

Folder: Contains actions that can be performed on folders. You can find things like copy, rename, delete, etc.

Message: Contains actions that can be applied to a message. If there is only one target for the action (such as replying to a message), you can normally find it in the Message menu. _

Search: Lets you search for messages, or phrases within a message. You can also see previous searches you have made. In addition to the Search menu, there is a text box in the toolbar that you can use to search for messages. You can also create a search folder from a search.

Help: Opens the Evolution Help files.

12.2.2 The Shortcut Bar

Evolution's most important task is to give you access to your information and help you use it quickly. One way it does that is through the shortcut bar, which is the column on the left side of the main window. The buttons, such as Mail and Contacts, are the shortcuts. Above them is a list of folders for the selected Evolution tool.

The folder list organizes your e-mail, calendars, contact lists, and task lists in a tree, similar to a file tree. Most people find one to four folders at the base of the tree, depending on the tool and their system configuration. Each Evolution tool has at least one, called *On This Computer*, for local information. For example, the folder list for the e-mail tool shows any remote e-mail storage you have set up, plus local folders and search folders.

If you get large amounts of e-mail, you might want to create more folders than your INBOX. You can create multiple e-mail folders, address books, calendars, task lists, or memo lists.

To create a new folder:

1. Click *File > New > Mail Folder*.
2. Type the name of the folder in the *Folder Name* field.
3. Select the location of the new folder.
4. Click *Create*.

12.2.2.1 Folder Management

Right-click a folder or subfolder to display a menu with the following options:

New Folder: Creates a new folder or subfolder in the same location.

Copy: Copies the folder to a different location. When you select this item, Evolution offers a choice of locations to copy the folder to.

Move: Moves the folder to another location.

Delete: Deletes the folder and all contents.

Mark Messages As Read: Marks all the messages in the folder as read.

Rename: Lets you change the name of the folder.

Refresh: Refreshes the folder.

Properties: Checks the number of total and unread messages in a folder and, for remote folders, lets you select whether to copy the folder to your local system for offline operation.

You can also rearrange folders and messages by dragging and dropping them.

Any time new e-mail arrives in a e-mail folder, that folder label is displayed in bold text, along with the number of new messages in that folder.

12.2.3 E-Mail

Evolution e-mail is like other e-mail programs in several ways:

- It can send and receive e-mail in HTML or as plain text, and makes it easy to send and receive multiple file attachments.
- It supports multiple e-mail sources, including IMAP, POP3, and local Mbox or mh spools and files created by other e-mail programs.
- It can sort and organize your e-mail in a wide variety of ways with folders, searches, and filters.
- It lets you guard your privacy with encryption.

However, Evolution differs from other e-mail programs in some very essential ways. First, it is built to handle very large amounts of e-mail. The junk e-mail, message filtering and searching functions were built for speed and efficiency. There is also the search folder, an advanced organizational feature not found in some e-mail clients. If you get a lot of e-mail, or if you keep every message you get in case you need to refer to it later, you will find this feature especially useful. Here is a quick explanation of what is happening in your main Evolution e-mail window. You can also run Evolution now in Windows.

Message List

The message list displays all the e-mails that you have. This includes all your read and unread messages and e-mail that is flagged to be deleted. With the Show radio button above the message you can filter the message list view using several predefined and custom labels.

Preview Pane

This is where your e-mail is displayed.

If you find the preview pane too small, you can resize the pane, enlarge the whole window, or double-click the message in the message list to have it open in a new window. To change the size of a pane, drag the divider between the two panes.

As with folders, you can right-click messages in the message list and get a menu of possible actions, including moving or deleting them, creating filters or search folders based on them, and marking them as junk mail.

E-mail-related actions, like Reply and Forward, appear as buttons in the toolbar and are also located in the right-click menu and as key combinations.

Templates

Evolution allows you to create and edit message templates that you can use at any time to send mail with the same pattern.

12.2.4 The Calendar

To begin using the calendar, click *Calendars* in the shortcut bar. By default, the calendar shows today's schedule on a ruled background. At the upper right, there is a Tasks list, where you can keep a list of tasks separate from your calendar appointments. Below that, there's a list for memos.

Appointment List

The appointment list displays all your scheduled appointments.

Month Pane

The month pane is a small view of a calendar month. You can also select a range of days in the month pane to display a custom range of days in the appointment list.

Tasks

Tasks are distinct from appointments because they generally do not have times associated with them. You can see a larger view of your task list by clicking Tasks in the shortcut bar.

Memos

Memos, like Tasks, do not have times associated with them. You can see a larger view of your Memo list by clicking Memos in the shortcut bar.

12.2.5 The Contacts Tool

The Evolution contacts tool can handle all of the functions of an address book or phone book. However, it is easier to update Evolution than it is to change an actual paper book, in part because Evolution can synchronize with Palm OS* devices and use LDAP directories on a network. Another advantage of the Evolution contacts tool is its integration with the rest of the application. For example, you can right-click an e-mail address in Evolution mail to instantly create a contact entry.

To use the contacts tool, click *Contacts* in the shortcut bar. By default, the display shows all your contacts in alphabetical order, in a minicard view. You can select other views from the *View* menu, and adjust the width of the columns by clicking and dragging the gray column dividers. The largest section of the contacts display shows a list of individual contacts. You can also search the contacts in the same way that you search e-mail folders, using the search tool on the right side of the toolbar.

12.3 For More Information

Get more information about Evolution from the official knowledge base available via F1. More useful information is available from the following links:

Official project homepage: <http://projects.gnome.org/evolution/> ↗

Wiki reference: http://www.go-evolution.org/Main_Page ↗

13 Seahorse: Signing and Encrypting Data

The GNOME Passwords and Encryption Keys program is an important component of the encryption infrastructure on your system. With the help of this program, you can create and manage PGP and SSH keys, import and export PGP and SSH keys, share your keys with others, back up your keys and keyring, cache your passphrase, and encrypt and decrypt the clipboard. Start the program by choosing *Applications > Utilities > Passwords and Keys*

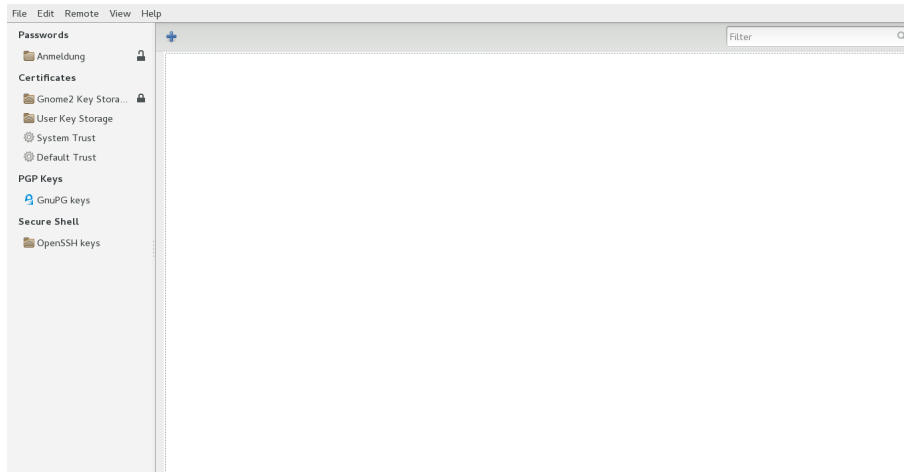


FIGURE 13.1: PASSWORD AND KEYS MAIN WINDOW

13.1 Signing and Encryption

Signing means attaching electronic signatures to e-mail messages or even software to prove its origin. To keep someone else from writing messages using your name, and to protect both you and the people you send them to, you should sign your mails. Signatures help you easily check the sender of the messages you receive and distinguish authentic messages from malicious ones. Software developers sign their software so that you can check the integrity. Even if you get the software from an unofficial server, you can verify the package with the signature.

You might also have sensitive information you want to protect from other parties. *Encryption* helps you transform data and make it unreadable for others. This is important for companies so they can protect internal information as well as their employees' privacy.

13.2 Generating a New Key Pair

To exchange encrypted messages with other users, you must first generate your own key pair. One part of it—the *public key*—is distributed to your communication partners, who can use it to encrypt the files or e-mail messages they send. The other part of the key pair—the *private key*—is used to decrypt the encrypted contents.

Important: Public vs. Private Key

The public key is intended for the public and should be distributed to all your communication partners. However, only you should have access to the private key. Do not grant other users access to this data.

13.2.1 Creating OpenPGP Keys

OpenPGP is a non proprietary protocol for encrypting e-mail with the use of public key cryptography based on PGP. It defines standard formats for encrypted messages, signatures, private keys, and certificates for exchanging public keys.

1. Click *Applications > Utilities > Passwords and Keys*.
2. Click *File > New*.
3. Select *PGP Key* and click *Continue*.
4. Specify your full name and e-mail address.
5. Click *Advanced key options* to specify the following advanced options for the key.

Comment

An optional comment.

Encryption Type

Specifies the encryption algorithms used to generate your keys. *DSA ElGamal* is the recommended choice because it lets you encrypt, decrypt, sign, and verify as needed. Both *DSA (sign only)* and *RSA (sign only)* allow only signing.

Key Strength

Specifies the length of the key in bits. The longer the key, the more secure it is (provided a strong passphrase is used), but keep in mind that performing any operation with a longer key requires more time than it does with a shorter key. Acceptable values are between 1024 and 4096 bits. At least 2048 bits is recommended.

Expiration Date

Specifies the date at which the key will cease to be usable for performing encryption or signing operations. You will need to either change the expiration date or generate a new key or subkey after this amount of time passes. Sign your new key with your old one before it expires to preserve your trust status.

6. Click *Create* to create the new key pair.

The *Passphrase for New PGP Key* dialog opens.

7. Specify the passphrase twice for your new key, then click *OK*.

When you specify a passphrase, use the same practices you use when you create a strong password. The main difference between a password and a passphrase is that spaces are valid characters in a passphrase.

13.2.2 Creating Secure Shell Keys

Secure Shell (SSH) is a method of logging in to a remote computer to execute commands on that machine. SSH keys are used in key-based authentication system as an alternative to the default password authentication system. With key-based authentication, there is no need to manually type a password to authenticate.

1. Click *Applications > Utilities > Passwords and Keys*.

2. Click *File > New*.

3. Select *Secure Shell Key*, then click *Continue*.

4. Specify a description of what the key is to be used for.

You can use your e-mail address or any other reminder.

5. Optionally, click *Advanced key options* to specify the following advanced options for the key.

Encryption Type. Specifies the encryption algorithms used to generate your keys. Select *RSA* to use the Rivest-Shamir-Adleman (RSA) algorithm to create the SSH key. This is the preferred and more secure choice. Select *DSA* to use the Digital Signature Algorithm (DSA) to create the SSH key.

Key Strength. Specifies the length of the key in bits. The longer the key, the more secure it is (provided a strong passphrase is used), but keep in mind that performing any operation with a longer key requires more time than it does with a shorter key. Acceptable values are between 1024 and 4096 bits. At least 2048 bits is recommended.

6. Click *Just Create Key* to create the new key, or click *Create and Set Up* to create the key and set up another computer to use for authentication.
7. Specify the passphrase for your new key, click *OK*, then repeat.
When you specify a passphrase, use the same practices you use when you create a strong password. The main difference between a password and a passphrase is that spaces are valid characters in a passphrase.

13.3 Modifying Key Properties

You can modify properties of existing OpenPGP or SSH keys.

13.3.1 Editing OpenPGP Key Properties

The descriptions in this section apply to all OpenPGP keys.

1. Click *Applications > Utilities > Passwords and Keys*.
2. Double-click the PGP key you want to view or edit.
3. Use the options on the *Owner* tab to add a photo to the key or to change the passphrase associated with the key.
Photo IDs allow a key owner to embed one or more pictures of themselves in a key. These identities can be signed like normal user IDs. A photo ID must be in JPEG format. The recommended size is 120 × 150 pixels.

If the chosen image does not meet the required file type or size, Passwords and Encryption Keys can resize and convert it on the fly from any image format supported by the GDK library.

4. Click the *Names and Signatures* tab to add a user ID to a key.

See [Section 13.3.1.1, "Adding a User ID"](#) for more information.

5. Click the *Details* tab, which contains the following properties:

Key ID: The Key ID is similar to the Fingerprint, but the Key ID contains only the last eight characters of the fingerprint. It is generally possible to identify a key with only the Key ID, but sometimes two keys might have the same Key ID.

Type: Specifies the encryption algorithm used to generate a key. DSA keys can only sign. ElGamal keys are used to encrypt.

Strength: Specifies the length, in bits, of the key. The longer the key, the more security it provides. However, a long key will not compensate for the use of a weak passphrase.

Fingerprint: A unique string of characters that exactly identifies a key.

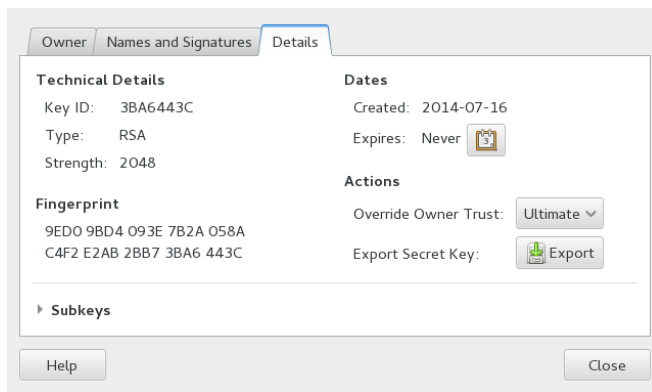
Created: The date the key was created.

Expires: The date the key can no longer be used (a key can no longer be used to perform key operations after it has expired). Changing a key's expiration date to a point in the future re-enables it. A good general practice is to have a master key that never expires and multiple subkeys that do expire and are signed by the master key.

Override Owner Trust: Here you can set the level of trust in the owner of the key. Trust is an indication of how sure you are of a person's ability to correctly extend the Web of trust. When you are faced with a key you have not signed, the validity of that person's key will be determined based on the signatures they have collected and how well or not you trust the people who have made those signatures.

Export Complete Key: Exports the key to a file.

Subkeys: See [Section 13.3.1.2, "Editing OpenPGP Subkey Properties"](#) for more information.



6. Click *Close*.

13.3.1.1 Adding a User ID

User IDs allow multiple identities and e-mail addresses to be used with the same key. Adding a user ID is useful, for example, when you want to have an identity for your job and one for your friends. They take the following form:

Name (*comment*) <*e-mail address*>

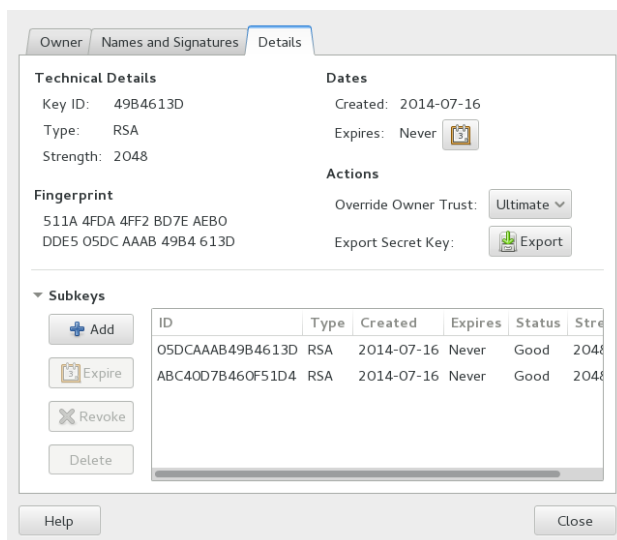
1. Click *Applications > Utilities > Passwords and Keys*.
2. Double-click the PGP key you want to view or edit.
3. Click the *Names and Signatures* tab, then click *Add Name*.
4. Specify a name in the *Full Name* field.
You must enter at least five characters in this field.
5. Specify an e-mail address in the *E-Mail Address* field.
Your e-mail address is how most people will locate your key on a key server or other key provider. Make sure it is correct before continuing.
6. In the *Key Comment* field, specify additional information that will display in the name of your new ID
This information can be searched for on key servers.

7. Click *Close*.

13.3.1.2 Editing OpenPGP Subkey Properties

Each OpenPGP key has a single master key used to sign only. Subkeys are used to encrypt and to sign as well. In this way, if your sub key is compromised, you don't need to revoke your master key.

1. Click *Applications > Utilities > Passwords and Keys*.
2. Double-click the PGP key you want to edit.
3. Click the *Details* tab, then click *Subkeys*.
4. Use the button to on the left of the dialog to add, delete, expire, or revoke subkeys.



Each subkey has the following information:

ID: The identifier of the subkey.

Type: Specifies the encryption algorithm used to generate a subkey. DSA keys can only sign, ElGamal keys are used to encrypt, and RSA keys are used to sign or to encrypt.

Created: Specifies the date the key was created.

Expires: Specifies the date the key can no longer be used.

Status: Specifies the status of the key.

Strength: Specifies the length, in bits, of the key. The longer the key, the more security it provides. However, a long key will not compensate for the use of a weak passphrase.

5. Click *Close*.

13.3.2 Editing Secure Shell Key Properties

The descriptions in this section apply to all SSH keys.

1. Click *Applications > Utilities > Passwords and Keys*.
2. Double-click the Secure Shell key you want to view or edit.
3. Use the options on the *Key* tab to change the name of the key or the passphrase associated with the key.
4. Click the *Details* tab, which contains the following properties:

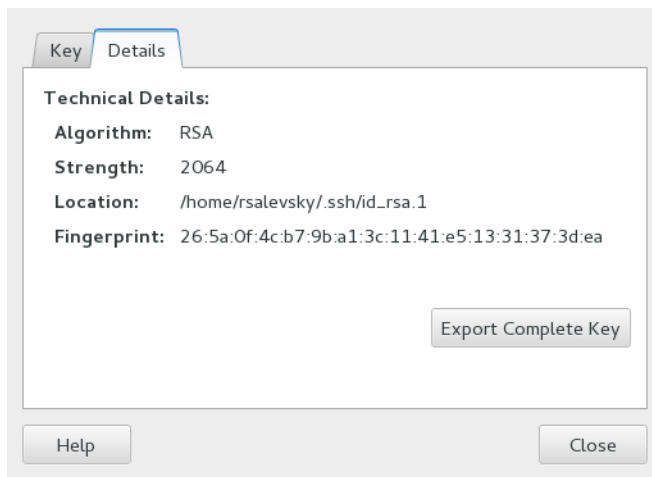
Algorithm: Specifies the encryption algorithm used to generate a key.

Strength: Indicates the length in bits of a key. The longer the key, the more security it provides. However, a long key does not make up for the use of a weak passphrase.

Location: The location where the private key has been stored.

Fingerprint: A unique string of characters that exactly identifies a key.

Export Complete Key: Exports the key to a file.



5. Click *Close*.

13.4 Importing Keys

To import keys:

1. Click *Applications > Utilities > Passwords and Keys*.
2. Click *File > Import*.
3. Select a file containing at least one ASCII armored public key.
4. Click *Open* to import the key.

You can also paste keys inside Passwords and Encryption Keys:

1. Select an ASCII armored public block of text, then copy it to the clipboard.
2. Click *Applications > Utilities > Passwords and Keys*.
3. Click *Edit > Paste*

13.5 Exporting Keys

To export keys:

1. Click *Applications > Utilities > Passwords and Keys*.
2. Select the keys you want to export.
3. Click *File > Export*.
4. Specify a file name and location for the exported key.
5. Click *Save* to export the key.

You can also export keys to the clipboard in an ASCII armored block of text:

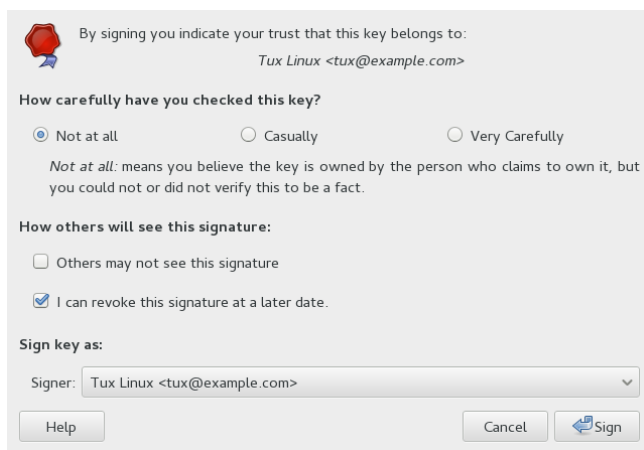
1. Click *Applications > Utilities > Passwords and Keys*.
2. Select the keys you want to export.
3. Click *Edit > Copy*.

13.6 Signing a Key

Signing another person's key means that you are giving trust to that person. Before signing a key, carefully check the key's fingerprint to ensure that the key really belongs to that person.

Trust is an indication of how sure you are of a person's ability to correctly extend the Web of trust. When you are faced with a key you have not signed, the validity of that person's key will be determined based on the signatures they have collected and how well or not you trust the people who have made those signatures. By default, an unknown key will require three signatures with marginal trust value or one fully trusted signature.

1. Click *Applications > Utilities > Passwords and Keys*.
2. Select the key you want to sign from the *My Personal Keys* or *Other Keys* tabs.
3. Click *File > Sign*.
4. Select how carefully the key has been checked, then indicate if the signature should be local to your keyring, and if your signature can be revoked



5. Click *Sign*.

13.7 Password Keyrings

You can use password keyring preferences to create or remove keyrings, to set the default keyring for application passwords or to change the unlock password of a keyring. To create a new keyring, follow these steps:

1. Click *Applications > Utilities > Passwords and Keys*.
2. Click *File > New > Password Keyring*, then click *Continue*.
3. Enter a new name for the keyring and press *Add*.
4. Set and confirm a new *Password* for the keyring and click *Create*.

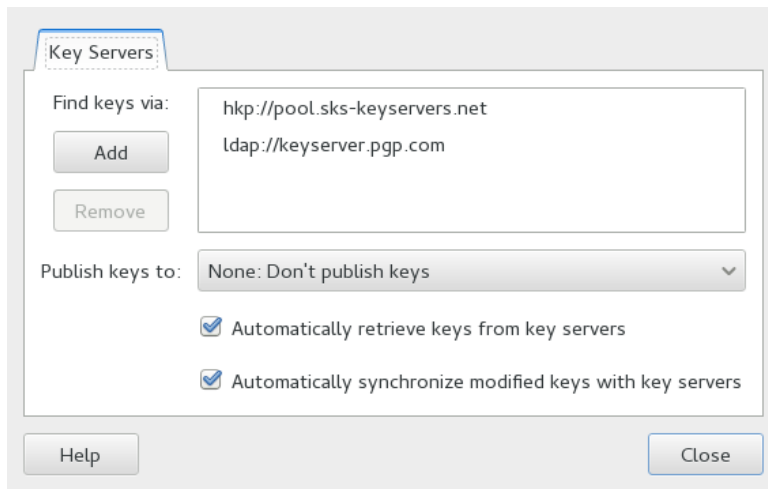
To change the unlock password of an existing keyring, click the keyring in the *Passwords* tab and press *Change Password*. You have to provide the old password to be able to change it.

To change the default keyring for application passwords, click the keyring in the *Passwords* tab and press *Set as Default*.

13.8 Key Servers

You can keep your keys up-to-date by synchronizing keys periodically with remote key servers. Synchronizing will ensure that you have the latest signatures made on all of your keys, so that the Web of trust will be effective.

1. Click *Applications > Utilities > Passwords and Keys*.
2. Click *Edit > Preferences*, then click the *Key Servers* tab.



Passwords and Encryption Keys provides support for HKP and LDAP keysevers.

HKP Servers: HKP keysevers are ordinary Web-based keysevers such as the popular `hkp://pgp.mit.edu:11371`, also accessible at <http://pgp.mit.edu>.

LDAP Keysevers: LDAP keysevers are less common, but use the standard LDAP protocol to serve keys. `ldap://keyserver.pgp.com` is a good LDAP server.

You can *Add* or *Remove* keysevers to be used using the buttons on the left. To add a new keyserver, set its type, host and port, if necessary.

3. Set whether you want to automatically publish your public keys and which keyserver to use. Set whether you want to automatically retrieve keys from keysevers and whether to synchronize modified keys with keysevers.
4. Click *Close*.

13.9 Key Sharing

Key Sharing is provided by DNS-SD, also known as Bonjour or Rendezvous. Enabling key sharing adds the local Passwords and Encryption Keys users' public key rings to the remote search dialog. Using these local key servers is generally faster than accessing remote servers.

1. Click *Applications > Utilities > Passwords and Keys*.
2. Click *Edit > Preferences*, then click the *Key Servers* tab.
3. Select *Automatically synchronize modified keys with key servers*.
4. Click *Close*.

V Communication and Collaboration

14 Pidgin: Instant Messaging **109**

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14 Pidgin: Instant Messaging

Pidgin (formerly called Gaim) is an instant messaging (IM) client that allows you to connect to multiple accounts simultaneously. Chat live with your contacts in one tabbed interface, regardless of which IM system they use. Pidgin supports the following instant messaging protocols: AOL* Instant Messenger (AIM), Bonjour, Gadu-Gadu, Google Talk, GroupWise Messenger, ICQ, IRC, Jabber/XMPP, MSN Messenger, MXit, MySpaceIM, QQ, SIMPLE, Yahoo!*, and Zephyr*. Pidgin also supports many features of the various networks, such as file transfer, away messages, and typing notification.

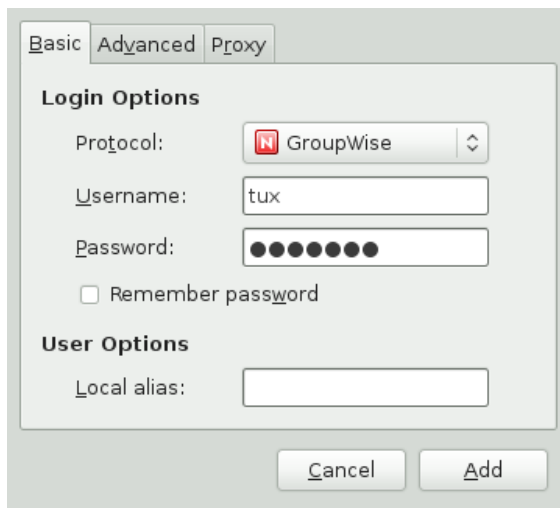
In the following, learn how to set up Pidgin and how to communicate with your contacts.

14.1 Configuring Accounts

To use Pidgin, you must already have accounts on the systems you want to use. For example, to use Pidgin for your AIM account, you must first have an AIM account. Once you have those accounts, set them up in the Pidgin *Add Account* dialog.

PROCEDURE 14.1: ADDING AND EDITING ACCOUNTS

1. Start Pidgin from the main menu or press **Alt-F2** and enter **pidgin**. If Pidgin does not start, check if the package `pidgin` is installed.
If you start Pidgin for the first time, a message appears, prompting you to configure an account. Otherwise, Pidgin opens the Buddy List window, showing your contacts.
2. To add or edit an account from there, select *Accounts > Manage Accounts*.
3. In the *Accounts* dialog, click *Add* to add a new account or select an existing account and click *Modify*.
4. On the *Basic* tab, select the protocol. The dialog to add or modify accounts differs for each protocol, depending on what setup options are available for that protocol.



5. Enter the data received on registration with the messaging service. This usually consists of the user name or e-mail address and a password. Your protocol might support additional options, such as a buddy icon, alias, login options, or others.
6. On the *Advanced* tab, enter the *Server* and *Port* you got from your messaging service or system administrator.
7. Click *Save*.
8. If needed, add accounts for each additional protocol, as described above.

After an account is added, you can log in to that account by entering your password in the Pidgin login dialog. Use the *Accounts* menu to view and enable or disable accounts that you have configured.

14.2 Managing Your Contacts

Use the Buddy List to manage your contacts, also known as buddies. You can add and remove buddies from your Buddy List, and you can organize your buddies in groups so they are easy to find.

After your accounts are set up, all buddies who are online appear in your Buddy List. If you want your buddies who are not online to appear in the Buddy List, click *Buddies > Show > Offline Buddies*.

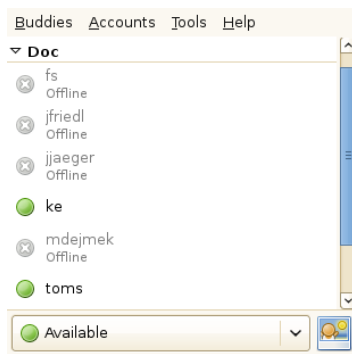


FIGURE 14.1: PIDGIN BUDDY LIST

To add a buddy to your Buddy List, click *Buddies* > *Add Buddy*, then enter the information about that buddy.



Note: Adding Contacts for Certain Protocols

For some protocols, you cannot add a buddy in the Pidgin interface. You must use the client for those protocols if you want to add to your buddy list. After you have added a buddy in the protocol's client, that buddy appears in your Buddy List.

To remove a buddy from the list of contacts, right-click that buddy's name in the Buddy List and click *Remove*.

14.3 Chatting with Friends

It is necessary to be connected to the Internet to be able to chat with other participants. After a successful login, you are usually marked as *Available* in the Buddy List, and thus visible to others. To change your status, click the drop-down box at the bottom of the Buddy List and select another option.

To open a chat session, double-click a buddy name in the Buddy List. The Chat screen opens. Type your message, then press *Enter* to send.

Each chat session you open appears as a tab in the Chat screen. Click a buddy's tab to chat with that buddy. Close a chat session by closing the tab for that buddy.

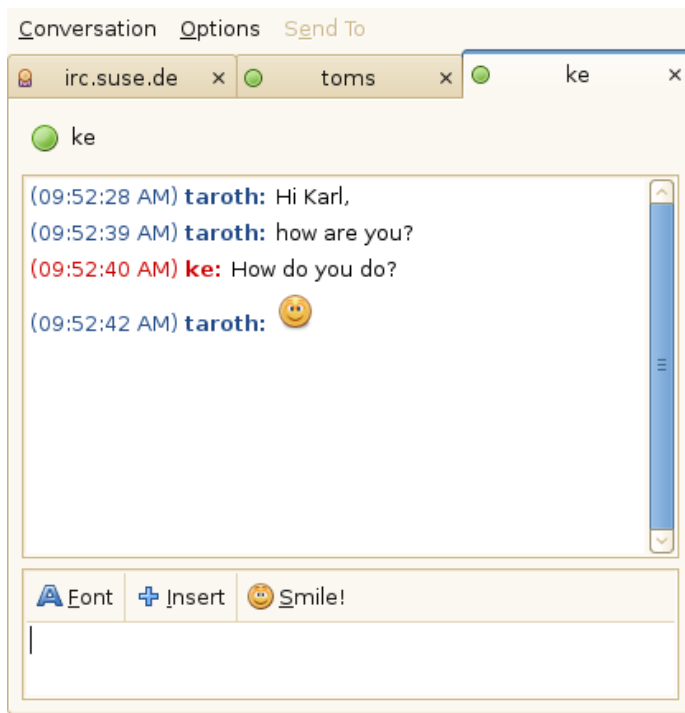


FIGURE 14.2: PIDGIN CHAT SESSION

14.4 For More Information

This chapter explained the Pidgin options you need to know about to set up Pidgin and communicate with your contacts. It does not explain all of Pidgin's features and options. For more information, open Pidgin, then click *Help* > *Online Help* or press **F1**.

For updates about new features and for the latest information, refer to the project's home page at <http://www.pidgin.im>.

15 Ekiga: Using Voice over IP

Modern telecommunication entails more than making phone calls. It is also about text messaging and sometimes even video conferencing. Roaming enables you to be reachable under one phone number all across the world. Ekiga brings these features to your Linux desktop, allowing you to communicate over broadband Internet.

Before starting, make sure that the following requirements are met:

- Your sound card is properly configured.
- A headset or a microphone and speakers are connected to your computer.
- For dialing in to regular phone networks, a SIP account is required. SIP (*Signaling protocol for Internet Telephony*) is the protocol used to establish sessions for audio and video conferencing or call forwarding. There are many VoIP providers all over the world. For a quick start, have a look at the service that the Ekiga project provides at <http://www.ekiga.net>.
- For video conferencing, a webcam is connected to your computer.

15.1 Configuring Ekiga




Tip

If Ekiga is not installed on your system, install it either with the YaST Software Management module, or by entering **`zypper install ekiga`** as **`root`** on the command line. After the installation is finished, you can run Ekiga by clicking *Applications > Internet > Ekiga Softphone*.

On first start, Ekiga opens a configuration assistant that requests all data needed to configure Ekiga. Proceed as follows:

1. Enter your full name (name and surname).
2. Enter your ekiga.net account data or choose not to register with <http://www.ekiga.net>. To add other accounts later, configure them using *Edit > Accounts*.

3. Enter your Ekiga Call Out Account data or choose not to register with <http://www.ekiga.net> .
4. Determine your connection type.
5. Choose the audio ringing, output and input device driver. *ALSA* is a safe default option which guarantees the best sound quality. Other sound systems, like *OSS*, are also available on SUSE Linux Enterprise Server.
By default, there is no ringing device set. If you want a ring tone, change this to one of your available audio devices.
6. Choose the video input device, if available.
7. Check the summary of your settings and apply them.
8. If registration fails after making changes to your configuration, restart Ekiga.

Ekiga allows you to maintain multiple accounts. To configure an additional account, proceed as follows:

1. Open *Edit > Accounts*.
2. Choose *Accounts > Add <account type>*. If unsure, select *Add a SIP Account*.
3. Enter the *Registrar* to which you want to register. This is usually an IP address or a host name that will be given to you by your Internet Telephony Service Provider. Enter *User*, and *Password* according to the data provided by your provider.
4. Leave the configuration dialog with *OK* and activate the account. The status of your account displayed in the Ekiga main window changes to *Registered*.

15.2 The Ekiga User Interface

The Ekiga user interface has several tabs available. The first tab is *Contacts*, the second is *Dialpad* and the last one is *Call History*. In addition, there is a *Call Panel* tab available, which displays pictures and videos of local or remote webcams.




FIGURE 15.1: EKIGA USER INTERFACE

The user interface has different modes. To switch between views, use the tab line. By default, Ekiga opens the *Contacts* tab. There, a local address book lets you quickly open connections to often-used numbers. To get a full view with webcam support and audio controls, activate the *Call Panel* with *View > Show Call Panel*.

At the bottom of the *Call Panel*, there are icons for several controls like *Audio Settings*, *Video Settings*, *Video Display* and *Hold Call*. All icons provide a tooltip that is activated by the mouse pointer hovering over the icon. Some settings like the *Audio* settings may only be changed during a phone call.

Many of the functions of Ekiga are available with key combinations. *Table 15.1, “Key Combinations for Ekiga”* summarizes the most important ones.

TABLE 15.1: KEY COMBINATIONS FOR EKIGA

Key Combination	Description
	Initiate a call with the current number.
	Hang up.
	Add a contact to your address book.
	Open the <i>Address Book</i> dialog.
	Hold the current call.
	Transfer the current call to another party.
	Suspend the audio stream of the current call.
	Suspend the video stream of the current call.
	Close the Ekiga user interface.
	Quit Ekiga.
	Start the account manager.
	Activate <i>Call Panel</i> on the main user interface.
	Zoom in to the picture from the Web cam.
	Zoom out on the picture from the Web cam.
	Return to the normal size of the Web cam display.
	Use full screen for the Web cam.

15.3 Making a Call

Once Ekiga is properly configured, making a call is easy.

1. Start Ekiga using the menu or the command line.
2. Enter the SIP address of the party to call at the *SIP address* prompt. The address should look like:
 - for direct local calls: sip:username@domainname or username@hostname
 - sip:username@domainname or userid@sipserver
3. Click *Call* or press **Ctrl-0** and wait for the other party to pick up the phone.
4. To end the call, click *Hang up* or press **Esc**.

If you need to tweak the sound parameters during a call, click the *Audio Settings* icon in the *Call Panel*. A window with the *Audio* options for *Playback level* and *Recording level* is displayed. Use the sliders to adjust the levels to fit your needs.

15.4 Answering a Call

Ekiga can receive calls in two different ways. First, the user may be called directly with sip:user@host, or via SIP provider. Most SIP providers enable you to get calls from a normal land-line to your VoIP account. Depending on the mode in which Ekiga is run, there are several ways in which you are alerted to an incoming call:

Normal Application

Incoming calls can only be received and answered if Ekiga is already running. You can hear the ring sound on your headset or your speakers. If Ekiga is not running, the call cannot be received.

Panel Applet

Normally, the Ekiga panel applet would run silently without giving any notice of its existence. This changes as soon as a call comes in. The main window of Ekiga opens and you hear a ringing sound on your headset or speakers.

Once you have noticed an incoming call, click *Accept* to answer the call then start talking. If you do not want to accept this call, click *Reject*. It is also possible to transfer the call to another SIP address.

15.5 Using the Address Book

Ekiga has the ability to manage your SIP contacts. All of the contacts are displayed in the *Contacts* tab, shown in the main window after start-up. To add a contact or a new contact group, run *Chat > Add Contact*.

If you want to add a new group, enter the group name into the bottom text box and press *Add*. The new group is then added to the group list and preselected.

The following entries are required for a valid contact:

Name

Enter the name of your contact. This may be a full name, but you can also use a nickname here.

Address


Enter a valid SIP address for your contact.


Groups



If you have many different contacts, add your own groups.

To call a contact from the address book, double-click this contact. The call is initiated immediately.

15.6 For More Information

The official home page of Ekiga is <http://www.ekiga.org/> . This site offers answers to frequently asked questions as well as more detailed documentation.

For information about the support of the H323 teleconferencing protocol in Linux, see <http://www.voip-info.org/wiki/view/H.323> . This is also a good starting point when searching for projects supporting VoIP.

To set up a private telephone network, you might be interested in the PBX software Asterisk <http://www.asterisk.org/> . Find information about it at <http://www.voip-info.org/wiki-Asterisk> .

VI Internet

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16 Firefox: Browsing the Web

Included with your SUSE® Linux Enterprise Server is the Mozilla Firefox Web browser. With features like tabbed browsing, pop-up window blocking and download and image management, Firefox combines the latest browsing and security technologies with an easy-to-use interface. Using tabs, you can view more than one Web page in a single window. You can suppress annoying advertisements and disable images for faster browsing. Firefox's easy access to different search engines helps you find the information you need.

Start Firefox from the main menu or by entering the command **`firefox`**. The main program features are described in the following sections.

16.1 Navigating Web Sites

Firefox has much of the same look and feel as other browsers. It is shown in *Figure 16.1, "The Browser Window of Firefox"*. The navigation toolbar includes *Forward* and *Back*, the smart location bar for a Web address, and the search bar. Bookmarks are also available for quick access from the bookmarks toolbar. For more information about the various Firefox features, use the *Help* menu.

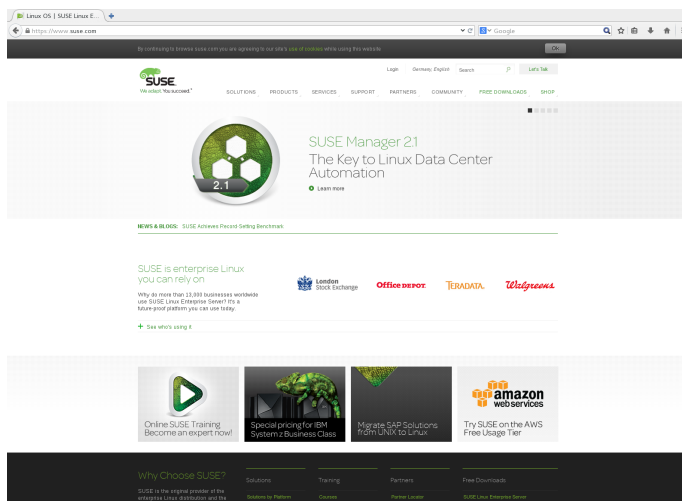


FIGURE 16.1: THE BROWSER WINDOW OF FIREFOX

16.1.1 The Smart Location Bar

When typing into the location bar, an auto-completion drop-down box opens, showing the addresses matching what you have typed. The phrase that is matched is highlighted with bold letters. The drop-down box shows all matching addresses, bookmarks, page titles and tag names from your browsing history and your bookmarks list. Matching even works across word boundaries. Entries visited most frequently and recently are listed first.

List entries from the bookmark list are marked with a star. Bookmarks with tags are marked with an additional label followed by the tag names. List entries from the browsing history are not marked.

Use **↑** and **↓** or the mouse wheel to scroll through the list. Press **Enter** or click an entry to go to the selected page. **Del** removes an entry from the list if it is an entry from the history. Bookmarked entries can only be removed by deleting the associated bookmark.

16.1.2 Zooming

Firefox offers two zooming options: page zoom, the default, and text zoom. Page view zooms the entire page as is, with all elements of a page, including graphics, expanding equally while text zoom only changes the text size.

To toggle between page and text zoom, choose *View > Zoom > Zoom Text Only*. To zoom in or out either use the mouse wheel while holding the **Ctrl** key, or use **Ctrl**+**+** and **Ctrl**+**-**. Reset the zoom factor with **Ctrl**+**0**.

16.1.3 Tabbed Browsing

If you often use more than one Web page at a time, tabbed browsing makes it easier to switch between pages. It allows you to load Web sites in separate tabs within one window.

Opening tabs

To open a new tab, select *File > New Tab* or press **Ctrl**+**T**. This opens an empty tab in the Firefox window. To open a link on a Web page or a bookmark in a tab, middle-click it. Alternatively, right-click a link and select *Open Link in New Tab*. You may also open an address in the location bar in a new tab with a middle-click or by pressing **Ctrl**+**Enter**.

Closing Tabs

Right-click a tab to open a context menu, giving you access to tab managing options such as closing, reloading, or bookmarking. To close a tab, you may also use **Ctrl**–**W** or click the close button. Any closed tab can be restored by choosing from *History > Recently Closed Tabs*. In order to reopen the last closed tab either choose *Undo Close Tab* from the context menu or press **Ctrl**–**Shift**–**T**.

Sorting Tabs

By default, tabs are sorted in the order you opened them. Rearrange the tab order by dragging and dropping a tab to the desired position. If you have opened a large number of tabs, they will not all be displayed in the tab bar. Use the arrows at the ends of the bar to move left or right-click the down arrow at the right end of the tab bar to get a list of all tabs.

Dragging and Dropping

Drag and drop also works with tabs. Drag a link onto an existing tab to open it in that tab or drag and drop a link on an empty space in the tab bar to open a new tab. Drag and drop a tab to the desktop to open it in a new browser window.

16.1.4 Using the Sidebar

Use the left side of your browser window for viewing bookmarks or browsing history. Extensions may add new ways to use the sidebar as well. To display the sidebar, select *View > Sidebar* and select the desired contents.

16.2 Finding Information

There are two ways to find information in Firefox: use the search bar to search the Internet with a search engine or the find bar to search the page currently displayed.

16.2.1 Finding Information on the Web

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

16.2.1.1 Customizing the Search Bar

If you want to change the order, add, or delete a search engine, establish an Internet connection and proceed as follows.

1. Click the icon to the left of the search bar.
2. Select *Manage Search Engines* from the menu.
3. Click *Remove* to delete an entry and *Move Up/Down* to change the order.

To add a search engine, click *Get More Search Engines*. Firefox displays a Web page with available plug-ins. You can choose from Wikipedia, IMDB, Flickr, and numerous others. Click *Download Now* to install it.

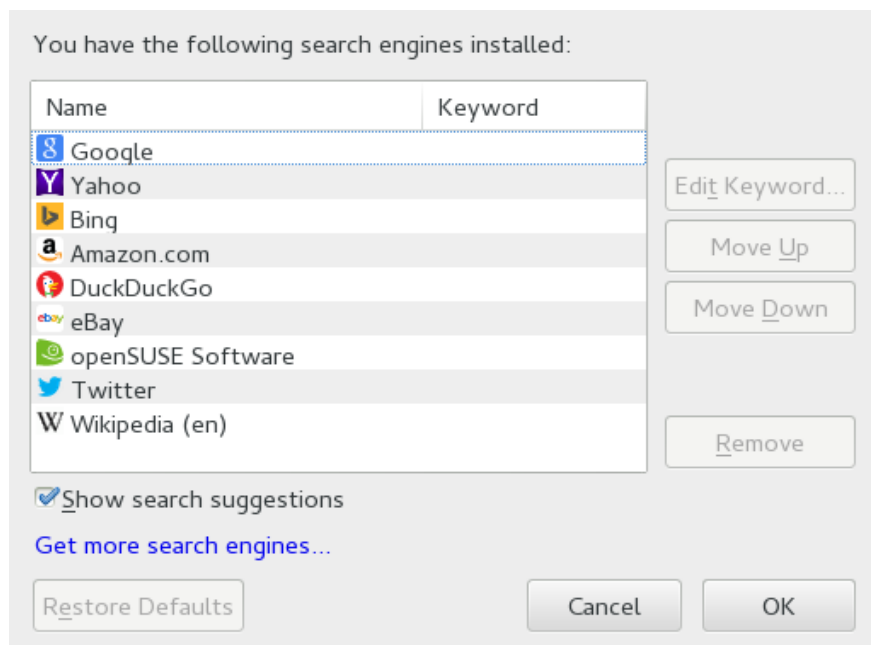


FIGURE 16.2: MANAGE SEARCH ENGINES

Some Web sites offer search engines that you can add directly to the search bar. Whenever you enter such a Web site, the icon to the left of the search bar turns blue. Click the icon and select the “Add” entry from the menu.

16.2.1.2 Adding Smart Keywords to Your Online Searches

Firefox lets you define your own *smart keywords*: abbreviations to use as a URL shortcut for a particular search engine. If you define ws as a smart keyword for the Wikipedia search for example, you can now type ws SEARCHTERM into the location bar to search Wikipedia for SEARCHTERM.

To assign a shortcut for a search engine from the search bar, click the icon to the left of the search bar and open the *Manage Search Engines* dialog. Mark a search engine and open the *Edit Keyword* dialog.

It is also possible to define a smart keyword for any search field on a Web site. Proceed as follows:

1. Right-click the search field and choose *Add a Keyword for this Search* from the menu that opens. The *Add Bookmark* dialog appears.
2. In *Name*, enter a descriptive name for this smart keyword.
3. Enter your *Keyword* for this search.
4. Choose the location where to save this smart keyword with *Create In*.
5. Finalize with *Add*.



Tip: Smart Keywords for Regular Web sites

Using smart keywords is not restricted to search engines. You can also add a smart keyword to a bookmark (via the bookmark's properties). For example, if you assign suse to the SUSE home page bookmark, you can open it by typing suse into the location bar.

16.2.2 Searching in the Current Page

To search inside a Web page, click *Edit > Find in This Page* or press **Ctrl-F**. The find bar opens. It is usually displayed at the bottom of a window. Type your query in the text box. Firefox finds the first occurrence of this phrase as you type. You can find other occurrences of the phrase by pressing **F3** or the *Next* button in the find bar. Clicking the *Highlight All* button will highlight all occurrences of the phrase. Checking the *Match Case* option makes the query case-sensitive. Firefox also offers two quick-find options. Click anywhere you like to start a search on a Web page, type the key **/** immediately followed by the search term. The first occurrence of the search term will be highlighted as you type. Use **F3** to find the next occurrence. It is also possible to limit quick-find to links only. This search option is available by typing the key **'**.

16.3 Managing Bookmarks

Bookmarks offer a convenient way of saving links to your favorite Web sites. Firefox not only makes it very easy to add new bookmarks with just one mouse click, it also offers multiple ways to manage large bookmark collections. You can sort your bookmarks into folders, create filtered views (called smart bookmarks) that will be updated on the fly, or you can classify bookmarks with tags.

Add a bookmark by clicking the star in the location bar. The star will turn yellow to indicate the page is bookmarked. Clicking once will save the bookmark in the *Unsorted Bookmarks* folder under the page title. Double click the star to open a menu which lets you choose a location where to save the bookmark and lets you enter a name and tags. Bookmarking all open tabs is done via the context menu. Right-click in a tab and choose *Bookmark All Tabs*. Firefox asks you to create a new folder for the tab links. To remove or edit a bookmark, open it and click the star in the location bar.

16.3.1 Organizing Bookmarks

The *Library* can be used to manage the properties (name and address location) for each bookmark and organize the bookmarks into folders and sections. It resembles *Figure 16.3, "The Firefox Bookmark Library"*.

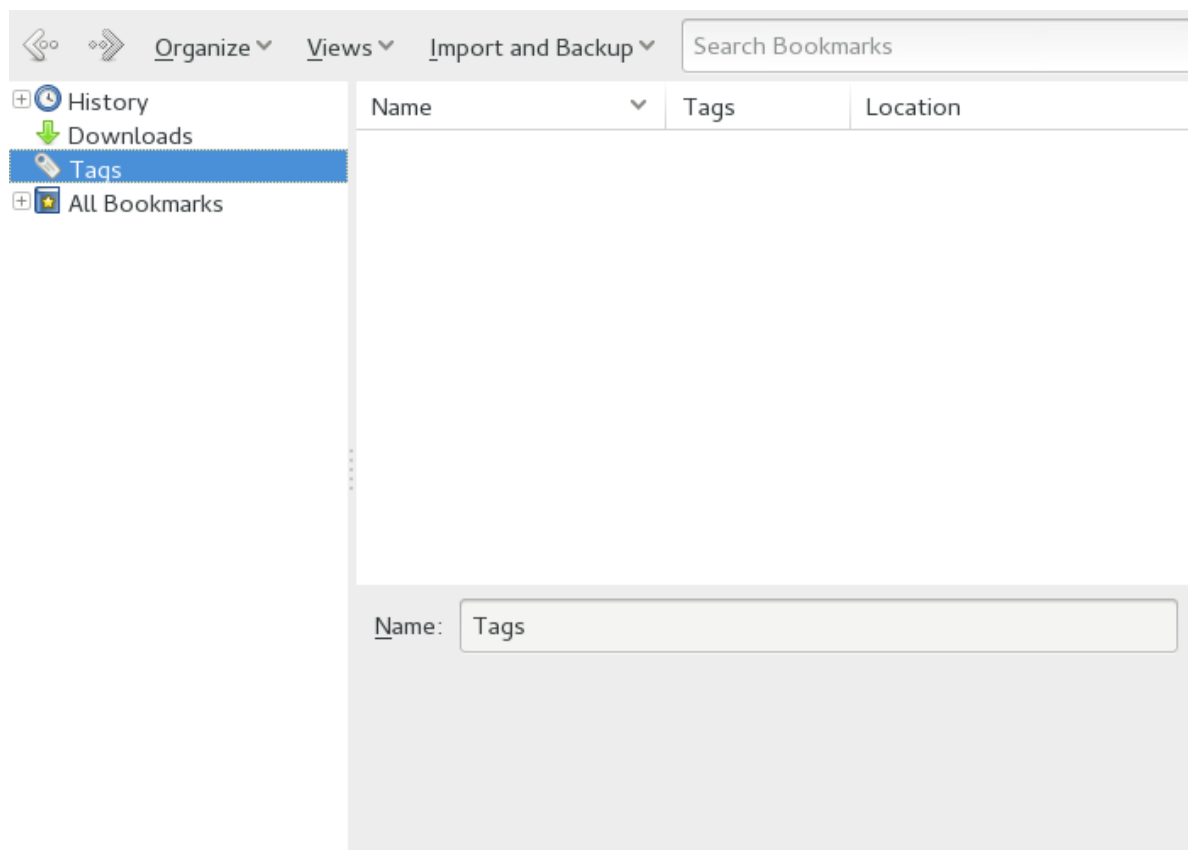


FIGURE 16.3: THE FIREFOX BOOKMARK LIBRARY

To open the *Library*, click *Bookmarks* › *Show All Bookmarks*. The library window is split into two parts: the left pane shows the folder tree view, the right pane the subfolders and bookmarks of the selected folder. Use *Views* to customize the right pane. The left pane contains three main folders:

History

Contains your complete browsing history. You cannot alter this list other than by deleting entries from it.

Tags

Lists bookmarks for each tag you have specified. See [Section 16.3.2, “Tags”](#) for more information on tags.

All Bookmarks

This category contains the three main bookmark folders:

Bookmarks Toolbar

Contains the bookmarks and folders displayed beneath the location bar. See [Section 16.3.6, “The Bookmarks Toolbar”](#) for more information.

Bookmarks Menu

Holds the bookmarks and folder accessible via the *Bookmarks* entry in the main menu or the bookmarks side menu.

Unsorted Bookmarks

Contains all bookmarks created with a single click the star in the location bar. This folder is only visible in the library and the bookmarks sidebar.

Organize your bookmarks using the right pane. Choose actions for folders or bookmarks either from the context menu that opens when you right-click an item or from the *Organize* menu. The properties of a chosen folder or bookmark can be edited in the bottom part of the right pane. By default, only *Name*, *Location*, and *Tags* are displayed for a bookmark. Click *More* to gain access to all properties.

Use drag and drop to rearrange your bookmarks. Left-click a bookmark and drag it to a new position while holding the mouse button pressed. Drop it by releasing the mouse button. You can use this technique to move a bookmark or a folder to a different folder, or to change the order of bookmarks in a folder.

16.3.2 Tags

Tags offer a convenient way to file a bookmark under several categories. You can tag a bookmark with as much terms as you want. For example, to access all sites tagged with suse enter suse into the location bar. What's more, a smart bookmark folder for each tag is automatically created in the tags folder of the library. Drag and drop a smart bookmark for a tag onto your bookmark toolbar or into a folder of your bookmarks menu to easily access it.

To add tags to a bookmark, open the bookmark in Firefox and click the yellow star in the location bar. The *Edit This Bookmark* dialog opens where you can add a comma separated list of tags. It is also possible to add tags via the bookmark's properties dialog which you can open in the library or by right-clicking a bookmark in the menu or the toolbar.

16.3.3 Importing and Exporting Bookmarks

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

To import bookmarks from another browser or from a file in HTML format, open the library by choosing *Bookmarks > Show All Bookmarks*. Start the Import Wizard by choosing *Import and Backup > Import Bookmarks from HTML* and choose an import location. Start the import by clicking *Next*. Bookmarks from another browser are imported to a separate folder under the bookmarks menu named From Browser Name . Imports from an HTML file are imported as is.

Exporting bookmarks is also done via the *Import and Backup* dialog in the library window. To save your bookmarks as an HTML file, choose *Export Bookmarks to HTML*. In order to create or restore a backup of your bookmarks, choose *Backup* or *Restore*. Firefox uses the JavaScript Object Notation file format (.json) for backups.

16.3.4 Live Bookmarks

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

Many sites and blogs support this format. A Web site indicates this by showing an orange icon in the right part of the location bar. Click the icon and choose *Subscribe Now* in the page that opens. A dialog opens in which to select the name and location of your live bookmark. Confirm with *Add*. This page also lets you choose alternative applications to subscribe to, such as *Bloglines*, or *My Yahoo*.

16.3.5 Smart Bookmarks

Smart bookmarks are virtual bookmark folders that are dynamically updated. By default, three smart bookmark folders are already predefined: the *Most Visited* links are available from your bookmarks toolbar, *Recently Bookmarked* links and *Recent Tags* are located in the bookmarks menu. You can create new smart bookmarks by searching for certain entries in your library.

To create a new smart bookmark, open the library by choosing *Bookmarks > Show All Bookmarks* and proceed as follows:

1. Either select one of the main folders (*History, Tags, All Bookmarks*) or a specific bookmarks folder.
2. Enter a search term into the text box, for example Linux. This will do a case-insensitive search for all links containing the phrase Linux in either the Web page title, the tags, or the URL.
3. *Save* the search to create a new smart bookmark. A smart bookmark will always be saved to the bookmarks menu folder—drag and drop it to the desired location.



Tip

Creating a smart bookmark from your saved bookmarks creates an up-to-date filtered view on your bookmarks that only changes when you add or delete bookmarks matching the search term.

A smart bookmark folder based on your browsing history dynamically changes as you surf the Web. Every time you browse a site that matches the search term, it gets “added” to your smart bookmark. For this reason, it is recommended to use search terms that are as specific as possible. If you are interested in links to SUSE Linux-specific topics as opposed to general Linux topics, use SUSE Linux rather than Linux.



Warning: Impact of Clearing Private Data

Clearing the private data also deletes the browsing history (unless configured otherwise) and so will also clear history based smart bookmarks.

16.3.6 The Bookmarks Toolbar

The Bookmarks Toolbar is displayed beneath the location bar and lets you quickly access bookmarks. You can also add, organize, and edit bookmarks directly. By default, the Bookmarks Toolbar is populated with a predefined set of bookmarks organized into several folders (see *Figure 16.1, “The Browser Window of Firefox”*).

To manage the Bookmarks Toolbar you can use the library as described in [Section 16.3.1, “Organizing Bookmarks”](#). Its content is located in the *Bookmarks Toolbar Folder*. It is also possible to manage the toolbar directly. To add a folder, bookmark, or separator, right-click an empty space in the toolbar and select the appropriate entry from the pop-up menu. To add the current page to the bar use drag and drop: left-click the Web page's icon in the location bar and drag it to the desired position on the bookmarks toolbar while pressing the mouse button. Hovering over an existing bookmark folder will automatically open it, enabling you to place the bookmark within this folder.

To manage a certain folder or bookmark, right-click it. A pop-up menu opens which lets you *Delete* it or change its *Properties*. To move or copy an entry, choose *Cut*, or *Copy* and *Paste* it to the desired position.

16.4 Using the Download Manager

Keep track of your current and past downloads with the help of the download manager. It automatically opens every time you download a file. To manually start the download manager, click *Tools > Downloads*. While downloading a file, a progress bar indicates the download status. If necessary, pause the download and resume it later. To open a downloaded file with the associated application, click *Open*. To open the location to which the file was saved, choose *Open Containing Folder*. *Remove From List* only deletes the entry from the download manager, it does not delete the file from the hard disk.

By default, all files are downloaded to your desktop. To change this behavior, open the download manager's configuration window from *Edit > Preferences* and go to the *General* tab. In the *Download* area, either choose another location or *Always Ask Me Where to Save Files*.



Tip: Resuming Downloads

If your browser crashes or is closed while downloading, all pending downloads will automatically be resumed in the background when starting Firefox the next time. A download that was paused before the browser was closed can manually be resumed via the download manager.

16.5 Security

Since browsing the Internet has become more risky, Firefox offers various measures to make browsing safer. It automatically checks whether you are trying to access a site known to contain harmful software (malware) or a site known to steal sensitive data (phishing) and stops you from entering these sites. The Instant Web Site ID lets you easily check a site's legitimacy, and a password manager and the pop-up blocker offer additional security. With Private Browsing you can surf the Internet without Firefox recording any data on your computer.

16.5.1 Instant Web Site ID

Firefox allows you to check the identity of a Web page with a single glance. The color of the Web site's icon (also called favicon) in the location bar to the left of the address indicates which identity information is available and whether communication is encrypted or not:

Gray

The site does not provide any identity information and communication between Web server and browser is not encrypted. This is fine as long as you do not exchange sensitive information with this site. Most Web sites will be “gray”.

Blue

This site is from a domain that has been verified by a certificate, so you can be sure that you are really connected to the very site it claims to be. Communication with a “blue” server is always encrypted.

Green

This site completely identifies itself by a certificate that ensures a site is owned by the person or organization it claims to be. This is especially important when exchanging very sensitive data (for example when doing money transactions over the Internet). In this case you can be sure to be on your bank's Web site when it sends complete identity information. Communication with a “green” server is always encrypted.

To view detailed identity information, click the Web site's icon in the location bar. In the opening pop-up click *More Information* to open the Page Info Window. Here, you can view the site's certificate and the encryption level, as well as information about stored passwords and cookies.

With the *Permissions* view you can set per-site permissions for image loading, pop-ups, cookies and installation permissions. The *Media* view lists all images, background graphics and embedded objects from a site and displays further information on each item together with a preview. It also lets you save each individual item.

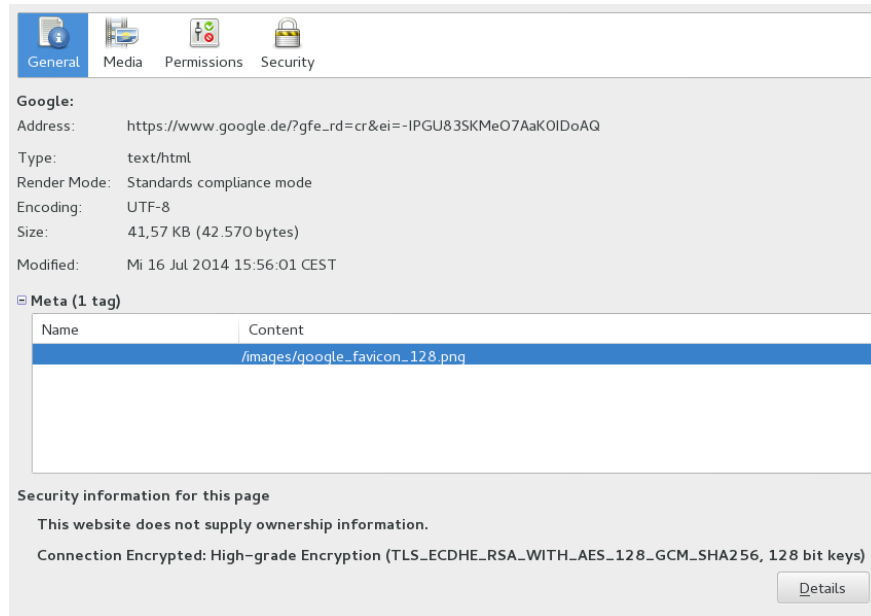


FIGURE 16.4: THE FIREFOX PAGE INFO WINDOW

16.5.1.1 Importing Certificates

Firefox comes with a certificate store for identifying certification authorities (CA). Using these certificates enables the browser to automatically verify certificates issued by Web sites. If a Web site issues a certificate that has not been signed by one of the CAs from the certificate store, it is not trusted. This ensures that no spoofed certificates are accepted.

Large organizations usually use their own certification authorities in-house and distribute the respective certificates via the system-wide certification store located at `/etc/pki/nssdb`. To configure Firefox (and all other Mozilla tools such as Thunderbird) to use this system-wide CA store in addition to its own, you need to export the `NSS_USE_SHARED_DB` variable, for example by adding the following line to `~/.bashrc`:

```
export NSS_USE_SHARED_DB=1
```

Alternatively or additionally you can manually import certificates via *Advanced > Encryption > Your Certificates* in the *Preferences* dialog. Make sure to only import certificates you can absolutely trust!

16.5.2 Password Management

Each time you enter a user name and a password on a Web site, Firefox offers to store this data. A new toolbar on top of the page opens, asking you whether you want Firefox to remember the password. If you accept by clicking *Remember*, the password will be stored on your hard disk in an encrypted format. The next time you access this site, Firefox will automatically fill in the login data.

To review or manage your passwords, open the password manager by clicking *Edit > Preferences > Security > Saved Passwords*. The password manager opens with a list of sites and their corresponding user names. By default, the passwords are not displayed. You can click *Show Passwords* to display them. Delete single or all entries from the list using *Remove* or *Remove All*, respectively.

To protect your passwords from unauthorized access, you can set a master password that is required when managing or adding passwords. Open the *Security* tab on the *Preferences* dialog and check *Use a Master Password*.

16.5.3 Private Browsing

By default, Firefox keeps track of your browsing history by storing content and links of visited Web sites, cookies, downloads, passwords, search terms and formula data. Collecting and storing this data makes browsing faster and more convenient. However, when you use a public terminal or a friend's computer, for example, you might want to turn it off. In Private Browsing mode Firefox will not keep track of your browsing history nor will it cache the content of pages you have visited.

Enable the Private Browsing mode by either clicking *File > New Private Window* or by pressing **Ctrl-Shift-P**. The current Web site and all open tabs will be replaced by the Private Browsing information screen. As long as you will browse in private mode, the string (Private Browsing) will be displayed in the window's titlebar.

Disable Private Browsing by closing the private window.

To make Private Browsing the default mode, open the *Privacy* tab in the Preference window as described in [Section 16.6.1, “Preferences”](#), set *Firefox will:* to *Use custom settings for history* and then choose *Always use private browsing mode*.



Warning: Bookmarks and Downloads

Downloads and bookmarks you made during Private Browsing mode will be kept.

16.6 Customizing Firefox

Firefox can be customized extensively. You can not only change the way Firefox behaves (by altering its preferences), but also add additional functionality (by installing extensions) or change the look and feel (by installing new themes). With the Add-ons manager, Firefox offers a convenient way to manage extensions, themes and plug-ins.

16.6.1 Preferences

Firefox offers a wide range of configuration options available via *Edit > Preferences*, see [Figure 16.5, “The Preferences Window”](#). Each option is described in detail in the online help, which can be accessed by clicking the *Help* button.

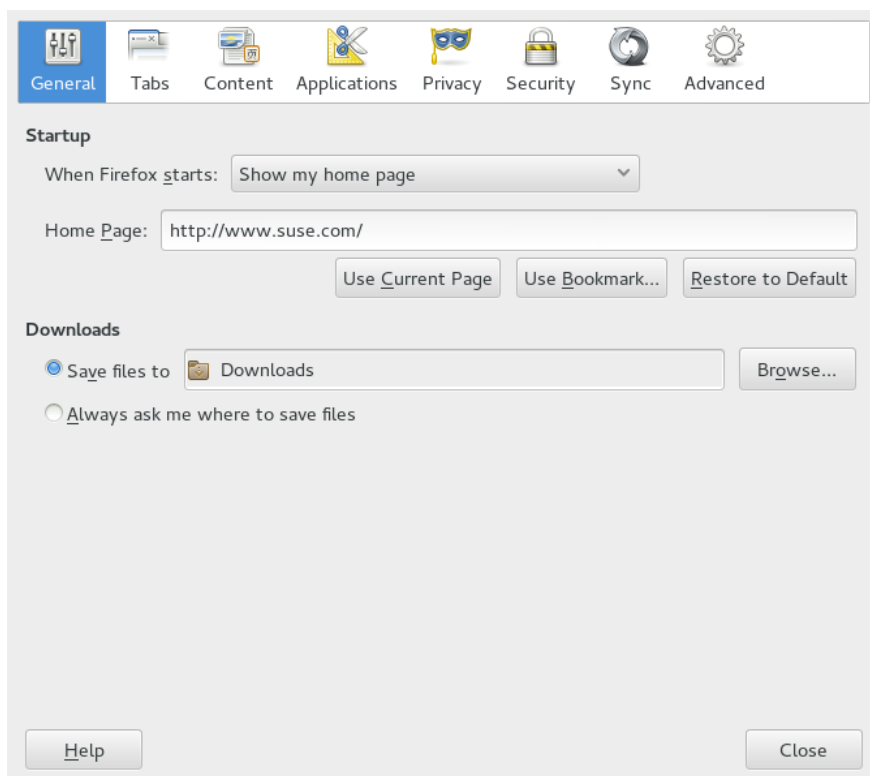


FIGURE 16.5: THE PREFERENCES WINDOW

16.6.1.1 Session management

By default, Firefox automatically restores your session—windows and tabs— only after it has crashed, or after a restart when having installed an extension. However, it can be configured to restore a session every time it is started: Open the Preferences dialog as described in [Section 16.6.1, “Preferences”](#) and go to the *General* tab. Set *When Firefox Starts:* to *Show My Windows and Tabs from Last Time*.

When you have multiple windows open they will only be restored the next time when you close all of them at once with *File > Quit* or with `Ctrl-Q`. If you close the windows one by one, only the last window will be restored.

16.6.1.2 Language Preferences for Web Sites

When sending a request to a Web server, the browser always sends the information about which language is preferred by the user. Web sites that are available in more than one language (and are configured to evaluate this language parameter) will display their pages in the language the

browser requests. On SUSE Linux Enterprise Server, the preferred language is preconfigured to use the same language as the desktop. To change this setting, open the *Preferences* window as described in [Section 16.6.1, “Preferences”](#), go to the *Content* tab and *Choose* your preferred language.

16.6.1.3 Spell Checking

When typing into multiple-line text boxes, Firefox, by default, spell-checks what you type. Misspelled words are underlined in red. To correct a word, right-click it and select the correct spelling from the context menu. You may also add the word to the dictionary, if it is correct.

To change or add a dictionary, right-click anywhere in a multi-line text box and select the appropriate option from the context menu. Here you may also disable spell-checking for this text box. If you want to globally disable spell checking, open the *Preferences* window as described in [Section 16.6.1, “Preferences”](#) and go to the *Advanced* tab. Uncheck *Check My Spelling As I Type*.

16.6.2 Add-ons

Extensions let you personalize Firefox to exactly fit your needs. With the help of extensions you can change Firefox's look and feel, enhance existing functionality (such as the download manager or tabbed browsing), and add functions (such as a blog editor, Bit Torrent support or even a music player). Certain extensions also assist Web developers, while others increase security by dynamically blocking active content. More than 5000 extensions are available for Firefox. With the add-ons manager you cannot only install new extensions, but also disable, enable, or delete them. It also finds updates for installed extensions.

If you do not like the standard look and feel of Firefox, install a new *theme*. Themes do not change the functionality, only the appearance of the browser.

16.6.2.1 Installing Add-ons

To add an extension or theme, start the add-ons manager with *Tools > Add-Ons*. It opens with the *Get Add-Ons* tab either displaying a choice of recommended add-ons or the results of your last search. Use the *Search All Add-Ons* field to search for specific add-ons. Click an entry in the list to view a short description and a screenshot. Install the add-on by clicking *Add to Firefox* or open a Web page with detailed information by clicking the *Learn More* link.

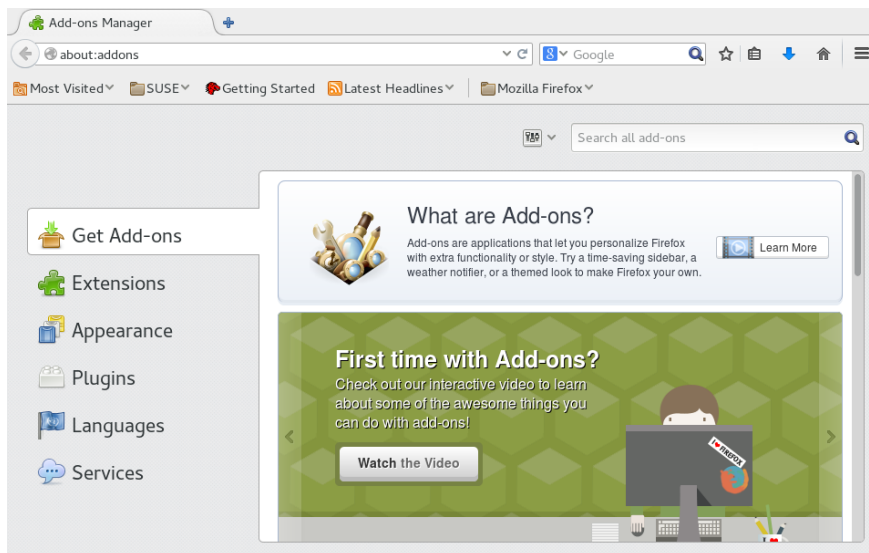


FIGURE 16.6: INSTALLING FIREFOX EXTENSIONS

If you want to browse all available add-ons or want to use advanced search options, click *Browse All Add-Ons*. This opens the Firefox add-ons Web page. To install an extension, click on the *Add to Firefox* button on the page describing the add-on.

In order to activate freshly installed extensions or themes, Firefox needs to be restarted via the *Restart Firefox* button in the add-ons manager. Restarting the browser with this button ensures that the complete session will be restored.

16.6.2.2 Managing Add-ons

The Add-ons Manager also offers a convenient interface to manage extensions, themes, and plug-ins. *Extensions* can be enabled, disabled or uninstalled. If an extension is configurable, its configuration options can be accessed via the *Preferences* button. In the *Themes* tab you may *Uninstall* a theme, or activate a different theme by clicking *Use Theme*. Pending extension and theme installations are also listed. Select *Cancel* to stop the installation. Although you cannot install *Plug-Ins* as a user, you may disable or enable them with the Add-ons manager.

Actions like uninstalling or disabling an add-on require a browser restart. Each time you perform such an action, the *Restart Browser* button is displayed in the add-ons manager.

16.7 Printing from Firefox

Before you actually print a Web page, you can use the print preview function to control how the printed page will look like. Choose *File > Print Preview*. Configure paper size and orientation per printer with *File > Page Setup*.

To print a Web page either choose *File > Print* or press **Ctrl-P**. The Printer dialog opens. To print with the default options click *Print*.

The Printer dialog also offers extensive configuration options to fine-tune the printout. On the *General* tab, choose a printer, the range to print, the number of copies and the order. *Page Setup* lets you specify the number of pages per side, the scaling factor as well as paper source and type. You can also activate double-sided printing here if the printer supports it. Control how frames, backgrounds, header and footer are printed on the *Options* tab. You may also specify *Job* options, such as printing at a specific time, and the *Image Quality* in this dialog.

16.8 Controlling Adobe Flash Player Settings

You can control the settings of the Adobe Flash Player plug-in with a local settings manager. Start the *Adobe Flash Player Settings* from the main menu or run **flash-player-properties** from a command line. The dialog allows you to define your preferences with regard to *Storage*, *Camera and Mic*, *Playback* and to change some advanced settings. For more information, refer to http://www.macromedia.com/support/documentation/en/flashplayer/help/settings_manager.html.

16.9 For More Information

Get more information about Firefox from the official knowledge base available via **F1**. More useful information is available from the following links:

Support forum: <http://support.mozilla.com/forum>

Main Menu reference: <http://support.mozilla.com/kb/Menu+reference>

Preferences reference: <http://support.mozilla.com/kb/Options+window>

Keyboard shortcuts: <http://support.mozilla.com/kb/Keyboard+shortcuts>

17 gFTP: Transferring Data From the Internet

GNOME FTP (gFTP) is a multithreaded file transfer client. It supports FTP, FTPS (control connection only), HTTP, HTTPS, SSH, and FSP protocols. Furthermore, it allows the transfer of files between two remote FTP servers via FXP. To start GNOME FTP, press **Alt-F2** and enter **gftp** or click *Applications > Internet > gFTP*.

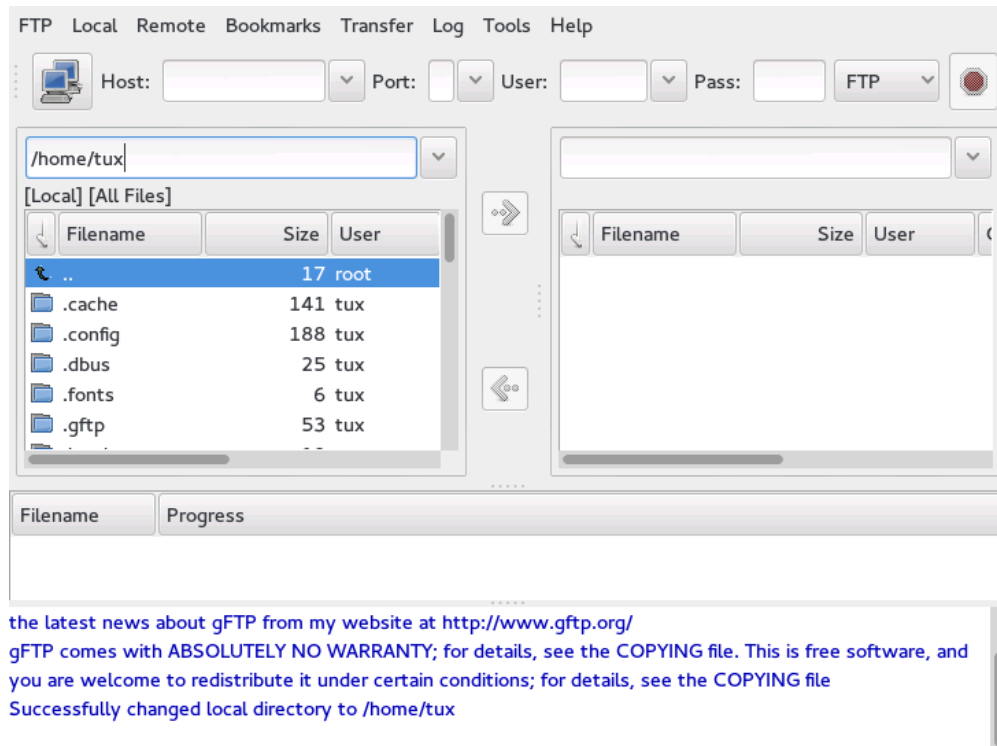


FIGURE 17.1: GNOME FTP

17.1 ASCII vs. Binary Transfers

There are two common ways of transferring files via FTP: ASCII and binary. *ASCII* mode transfers files as text. ASCII files are `.txt`, `.asp`, `.html`, and `.php` files, for example. *Binary* mode transfers files as raw data. Binary files are `.wav`, `.jpg`, `.gif`, and `mp3` files, for example.

To change the transfer mode click *FTP* and choose *Binary* or *Ascii*.

When transferring ASCII files from Linux/Unix to Windows or vice versa, check the option *FTP > Preferences > FTP > Transfer Files in ASCII Mode* to ensure that newline characters are correctly converted. This option will automatically be disabled in Binary mode.

17.2 Connecting to a Remote Server

To connect to a remote server, do the following:

1. Click *Remote* > *Open Location*.
2. Specify a URL to connect to and click *Connect*.
3. Specify your user name and click *Connect*. Then specify your password and click *Connect*. To connect anonymously, leave the user name blank.
4. If connection is successful, a list of the files on the remote server appears in the right part of the GNOME FTP window (the file list on the left side is your local computer's directory of files). You can now upload and download files via drag and drop or by using the arrow buttons.

To bookmark a site you access frequently, click *Bookmarks* > *Add Bookmark*. Specify a name for the bookmark, then click *Add*. The new bookmark is added to your list of bookmarks.

17.3 Transferring Files

In the following figure, the file list on the right contains the remote server's directory of files. The file list on the left side contains your local computer's directory of files (on your hard disk or network).

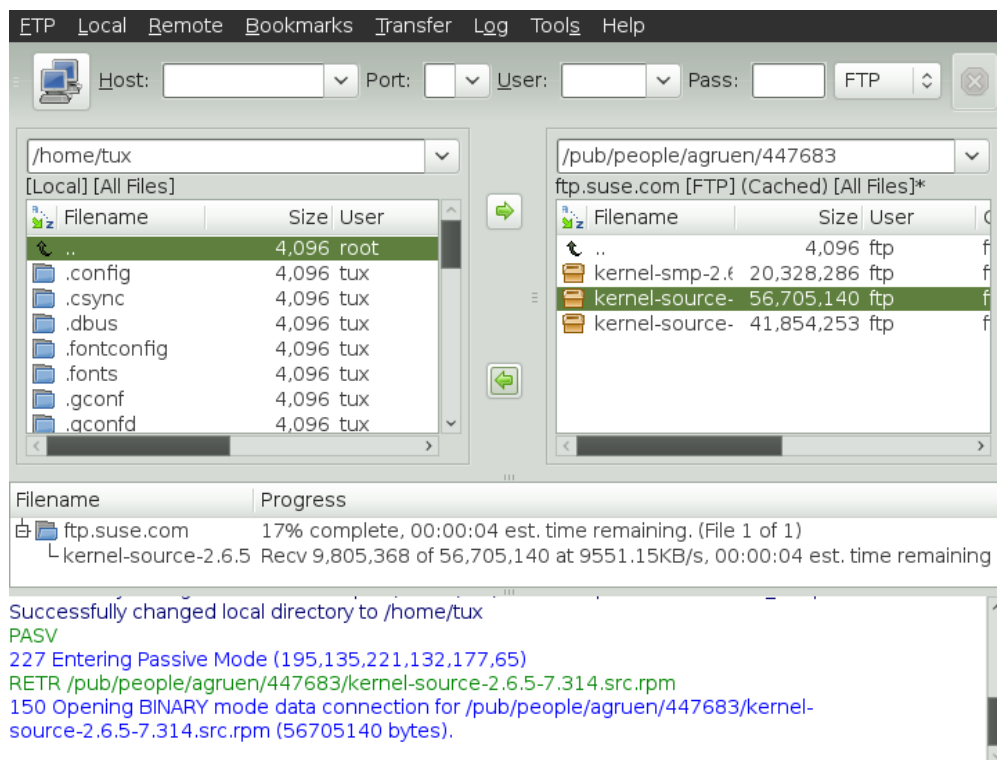


FIGURE 17.2: GFTP FILE TRANSFER

To download files, select the files you want to download in the remote list of files, then click the left arrow button. The progress of each download is listed in the field in the middle of the window. If the transfer is successful, the files appear in the directory listing on the left.

To upload a file, select the files you want to upload in your local directory listing on the left, then click the right arrow button. The progress of each download is listed in the field in the middle of the window. If the transfer is successful, the files appear in the remote directory listing on the right.

To modify preferences for your downloads, click *FTP > Preferences*.


17.4 Setting Up an HTTP Proxy Server

To set up an HTTP proxy server, do the following:

1. Click *FTP > Preferences*, then select the *FTP* tab.
2. Enter the *Proxy hostname* and *Proxy port*. If applicable, also provide your login credentials for the proxy server. Choose a proxy type from the *Proxy Server Type* drop-down box.

3. Click the *HTTP* tab, and enter the same proxy server information as above in the dialog. Note that port numbers for FTP and HTTP proxy may differ. If in doubt, ask your system administrator.
4. Click *OK*.

17.5 For More Information

You can find more information about gFTP at <http://www.gftp.org> .

VII Graphics

18 GIMP: Manipulating Graphics **144**

18 GIMP: Manipulating Graphics

GIMP (*the GNU Image Manipulation Program*) is a program for creating and editing raster graphics. In most aspects, its features are comparable to those of Adobe Photoshop and other commercial programs. Use it to resize and retouch photographs, design graphics for Web pages, create covers for your custom CDs, or almost any other graphics project. It meets the needs of both amateurs and professionals.

Like many other Linux programs, GIMP is developed as a cooperative effort of developers worldwide who volunteer their time and code to the project. The program is under constant development, so the version included in your system may vary slightly from the version discussed here. The layout of the individual windows and window sections is especially likely to vary.

GIMP is an extremely complex program. Only a small range of features, tools, and menu items are discussed in this chapter. See [Section 18.7, “For More Information”](#) for ideas of where to find more information about the program.

18.1 Graphics Formats

There are two main types of graphics—raster and vector. GIMP is intended for working with raster graphics, which is the normal format for digital photographs or scanned images. Raster image is a collection of pixels—small blocks of color that together create the entire image. High resolution images contain large number of pixels and image files can easily become quite large because of this. It is also not possible to increase the size of a pixel image without losing quality. GIMP supports all the common formats of raster graphics, like JPEG, PNG, GIF, BMP, TIFF, and more.

Unlike raster graphics, vector graphics do not store information for all individual pixels. Instead, it uses geometrical primitives such as points, lines, curves, and polygons. Vector images can be scaled very easily and image files can be smaller. The disadvantage of vector graphics is that it is not good at representing complex images with many different colors such as photographs. There are many specialized applications for vector graphics, for example Inkscape. GIMP has only a very limited support for vector graphics. For example, GIMP can open and rasterize vector graphics in SVG format or work with vector paths.

GIMP 2.6 still supports only limited selection of color spaces. It supports indexed images and grayscale or RGB images with 8 bits per channel (24 bits per pixel in RGB images without alpha channel). Many high-end digital cameras can produce image files with higher color depths. If you import such an image to GIMP, you will lose some color information.

18.2 Starting GIMP

To start GIMP, select *Applications > Graphics > GIMP*. Alternatively, enter **gimp &** in a command line.

18.2.1 The Default Windows

Three windows appear by default. The toolbox, an empty image window with the main GIMP menu, and a window containing several docked dialogs. They can be arranged on the screen and, except the toolbox and the last image window, closed if no longer needed. Closing the toolbox or the last image window quits the application. In the default configuration, GIMP saves your window layout when you quit. Dialogs left open reappear when you next start the program.

18.2.1.1 The Image Window

Every new, opened, or scanned image appears in its own window. If there is more than one open image, each image has its own image window. There is always at least one image window open. If there is currently no image open, the image window is empty, containing only the main GIMP menu and drop area, which can be used to open any file by dragging and dropping it there. Closing the last image window quits the application.

The menu bar in the top of the window provides access to all image functions. Conversely, access the menu by right-clicking the image or clicking the small arrow button in the left corner of the rulers.

The *File* menu offers the standard file operations, such as *New*, *Open*, *Save*, *Print* and *Close*. *Quit* quits the application.

With the items in the *View* menu, control the display of the image and the image window. *New View* opens a second display window of the current image. Changes made in one view are reflected in all other views of that image. Alternate views are useful for magnifying a part

of an image for manipulation while seeing the complete image in another view. Adjust the magnification level of the current window with *Zoom*. When *Fit Image in Window* is selected, the image window is resized to fit the current image display exactly.

18.2.1.2 The Toolbox

The toolbox contains important controls of the application. Closing it quits the application. At the very top, there is a drop area which can be used to open any image file by simply dragging and dropping it there. Below that, find icons for the various tools. Hover the mouse over an icon to display information about it.

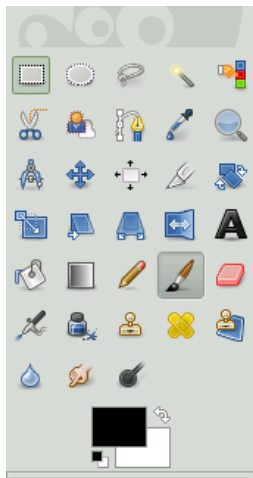


FIGURE 18.1: THE TOOLBOX

The current foreground and background color are shown in two overlapping boxes. The default colors are black for the foreground and white for the background. Click the box to open a color selection dialog. Swap the foreground and background color with the bent arrow symbol to the upper right of the boxes. Use the black and white symbol to the lower left to reset the colors to the default.

Under the toolbox, a dialog shows options for the currently selected tool. If it is not visible, open it by double-clicking the tool's icon in the toolbox.

18.2.1.3 Layers, Channels, Paths, Undo

In the first section, use the drop-down box to select the image to which the tabs refer. By clicking *Auto*, control whether the active image is chosen automatically. By default, *Auto* is enabled.


Layers shows the different layers in the current images and can be used to manipulate the layers. Information is available in [Section 18.5.6, “Layers”](#). *Channels* shows and can manipulate the color channels of the image.

Paths are a vector-based method of selecting parts of an image. They can also be used for drawing. *Paths* shows the paths available for an image and provides access to path functions. *Undo* shows a limited history of modifications made to the current image. Its use is described in [Section 18.5.5, “Undoing Mistakes”](#).

18.3 Getting Started

Although GIMP can be a bit overwhelming for new users, most quickly find it easy to use after they work out a few basics. Crucial basic functions are creating, opening, and saving images.

18.3.1 Creating a New Image

To create a new image, select *File* > *New* or press . This opens a dialog in which to make settings for the new image. If desired, select a predefined setting called a *Template*.

To create a custom template, select *Windows* > *Dockable Dialogs* > *Templates* and use the controls offered by the window that opens.

In the *Image Size* section, set the size of the image to create in pixels or another unit. Click the unit to select another unit from the list of available units. The ratio between pixels and a unit is set in *Resolution*, which appears when the *Advanced Options* section is opened. A resolution of 72 pixels per inch corresponds to common screen display. It is sufficient for Web page graphics. A higher resolution should be used for print images. For most printers, a resolution of 300 pixels per inch results in an acceptable quality.

In *Color space*, select whether the image should be in color (*RGB*) or *Grayscale*. For detailed information about image types, see [Section 18.5.7, “Image Modes”](#). In *Fill With* select the color the image is filled with. You can choose between *Foreground Color* and *Background Color* set in the toolbox, *White* or *Transparency* for a transparent image. Transparency is represented by a gray checkerboard pattern. You can enter a comment for the new image in *Comment*.

When the settings meet your needs, press *OK*. To restore the default settings, press *Reset*. Pressing *Cancel* aborts creation of a new image.

18.3.2 Opening an Existing Image

To open an existing image, select *File > Open* or press **Ctrl-O**. In the dialog that opens, select the desired file. You can also press **Ctrl-L** and type directly the path to the desired image. Then click *Open* to open the selected image or press *Cancel* to skip opening an image.

18.4 Saving Images

No image function is as important as *File > Save*. It is better to save too often than too rarely. Use *File > Save as* to save the image with a new file name. It is a good idea to save image stages under different names or make backups in another directory so you can easily restore a previous state. When saving for the first time or using *Save as*, a dialog opens in which to specify the file name and type. Enter the file name in the field at the top. For *Save in folder*, select the directory in which to save the file from a list of commonly used directories. To use a different directory or create a new one, open *Browse for other folders*. It is recommended to leave *Select File Type* set to *By Extension*. With that setting, GIMP determines the file type based on the extension appended to the file name. The following file types are frequently useful:

XCF

This is the native format of the application. It saves all layer and path information along with the image itself. Even if you need an image in another format, it is usually a good idea to save a copy as XCF to simplify future modifications. Information about layers is available in [Section 18.5.6, "Layers"](#).

JPEG

JPG or JPEG is a common format for photographs and Web page graphics without transparency. Its compression method enables reduction of file sizes, but information is lost when compressing. It may be a good idea to use the preview option when adjusting the compression level. Levels of 85% to 75% often result in an acceptable image quality with reasonable compression. Saving a backup in a lossless format, like XCF, is also recommended. If editing an image, save only the finished image as JPG. Repeatedly loading a JPG then saving can quickly result in poor image quality.

GIF

Although very popular in the past for graphics with transparency, GIF is less often used now because of license issues. GIF is also used for animated images. The format can only save *indexed* images. See [Section 18.5.7, “Image Modes”](#) for information about indexed images. The file size can often be quite small if only a few colors are used.

PNG

With its support for transparency, lossless compression, free availability, and increasing browser support, PNG is replacing GIF as the preferred format for Web graphics with transparency. An added advantage is that PNG offers partial transparency, which is not offered by GIF. This enables smoother transitions from colored areas to transparent areas (*antialiasing*).

To save an image in the chosen format, press *Save*. To abort, press *Cancel*. If the image has features that cannot be saved in the chosen format, a dialog appears with choices for resolving the situation. Choosing *Export*, if offered, normally gives the desired results. A window then opens with the options of the format. Reasonable default values are provided.

18.5 Editing Images

GIMP provides a number of tools for making changes to images. The functions described here are those most interesting for home users.

18.5.1 Changing the Image Size

After an image is scanned or a digital photograph is loaded from the camera, it is often necessary to modify the size for display on a Web page or for printing. Images can easily be made smaller either by scaling them down or by cutting off parts of them. Enlarging an image is much more problematic. Because of the nature of raster graphics, quality is lost when an image is enlarged. It is recommended to keep a copy of your original image before scaling or cropping.

18.5.1.1 Cropping an Image

Cropping an image works like cutting the edges off a piece of paper. Select the crop tool from the toolbox (it resembles a scalpel) or with *Tools > Transform Tools > Crop*. Click a starting corner and drag to outline the area to keep.

A rectangle showing the crop area will appear. To adjust the size of the rectangle, move your mouse pointer above any of the rectangle's sides or corners, click and drag to resize as desired. If you want to adjust both width and height of the rectangle, use a corner. To adjust only one dimension, use a side. To move the whole rectangle to a different position without resizing, click anywhere near its center and drag to the desired position.

When you are satisfied with the crop area, click anywhere inside to crop the image or press **Enter**. To cancel the cropping, click anywhere outside the crop area.

Advanced options for the crop tool are available in the *Tool Options* dialog.

18.5.1.2 Scaling an Image

Select *Image > Scale Image* to change the overall size of an image. Select the new size by entering it in *Width* or *Height*. To change the proportions of the image when scaling (this distorts the image), click the chain icon to the right of the fields to break the link between them. When those fields are linked, all values are changed proportionately. Adjust the resolution with *X resolution* and *Y resolution*.

The *Interpolation* option controls the quality of the resulting image. The default *Cubic* interpolation method is a good standard to use in most cases.

When finished adjusting the size, press *Scale* to scale the image. *Reset* restores the original values. *Cancel* aborts the procedure.

18.5.1.3 Changing the Canvas Size

Changing the canvas size is like putting a mat around an image. Even if the mat is smaller, the rest of the image is there, but you can only see part of it. If the mat is larger, you see the original image with extra space around it. To do this, select *Image > Canvas Size*.

In the dialog that opens, enter the new size. By default, the width and height maintain the same proportions as the current image. To change this, click the chain icon.

After adjusting the size, determine how the existing image should be positioned in comparison to the new size. Use the *Offset* values or drag the box inside the frame at the bottom. When satisfied with the changes, click *Resize* to change the canvas size. Click *Reset* to restore the original values or *Cancel* to cancel the canvas resize.

18.5.2 Selecting Parts of Images

It is often useful to perform an image operation on only part of an image. To do this, the part of the image with which to work must be selected. Areas can be selected using the select tools available in the toolbox, using the quick mask, or combining different options. Selections can also be modified with the items under *Select*. The selection is outlined with a dashed line, called *marching ants*.

18.5.2.1 Using the Selection Tools

The main selection tools are rather easy to use. The paths tool, which can also be used for more than selecting, is more complicated so is not described here. In the tool options for the other selection tools, use one of the icons in the *Mode* row to determine whether the selection should replace, be added to, be subtracted from, or intersect with an existing selection.

Rect Select

This tool can be used to select rectangular or square areas. To select an area with a fixed aspect ratio, width, height or size, activate the *Fixed* option and choose the relevant mode in the *Tool Options* dialog. To create a square, hold **Shift** while selecting a region.

Ellipse Select

Use this to select elliptical or circular areas. The same options are available as with the rectangular selection. To create a circle, hold **Shift** while selecting a region.

Free Select (Lasso)

With this tool, you can create a selection based on a combination of freehand drawing and polygonal segments. To draw a freehand line, drag the mouse over the image with the left mouse button pressed. To create a polygonal segment, release the mouse button where the segment should start and press it again where the segment should end. To complete the selection, hover the pointer above the starting point and click inside the circle.

Fuzzy Select (Magic Wand)

This tool selects a continuous region based on color similarities. Set the maximum difference between colors in the tool options dialog in *Threshold*. By default, the selection is based only on the active layer. To base the selection on all visible layers, check *Sample merged*.

Select by Color

With this, select all the pixels in the image with the same or similar color as the clicked pixel. The maximum difference between colors can be set in the tool options dialog in *Threshold*. The important difference between this tool and Fuzzy Select is that Fuzzy Select works on continuous color areas while Select by Color selects all pixels with similar colors in the whole image regardless of their position.

Intelligent Scissors

Click a series of points in the image. As you click, the points are connected based on color differences. Click the first point to close the area. Convert it to a regular selection by clicking inside it.

Foreground Selection Tool

The Foreground Selection tool lets you semi-automatically select an object in a photograph with minimal manual effort.

If you want to use the Foreground Selection tool, follow these steps:

1. Activate the Foreground Selection tool by clicking its icon in the Toolbox or choosing *Tools > Selection Tools > Foreground Select* from the menu.
2. Roughly select the foreground object you want to extract. Select as little as possible from the background but include the whole object. At this point, the tool works like the Fuzzy Select tool.
When you release the mouse button, the non selected part of the image is covered with dark blue mask.
3. Draw a continuous line through the foreground object going over colors which will be kept for the extraction. Do not paint over background pixels.
When you release the mouse button, all background is covered with dark blue mask. If parts of the object are also masked, paint over them. The mask will adapt.
4. When you are satisfied with the mask, press . The mask will be converted to a new selection.

18.5.2.2 Using the Quick Mask

The quick mask is a way of selecting parts of an image using the paint tools. A good way to use it is to make a rough selection using the intelligent scissors or the lasso (the free selection tool). Then activate the quick mask by pressing the small icon with the dashed box in the lower left corner.

The quick mask displays the selection using an overlay of red. Areas shaded with red are not selected. Areas appearing as they did before the mask was activated are selected. To modify the selection, use the paint tools. Painting with white selects the painted pixels. Painting with black deselects pixels. Shades of gray (colors are treated as shades of gray) are a partial selection. Partial selection allow a smooth transitions between selected and unselected areas.

To use a different color for displaying the quick mask, right-click the quick mask button then select *Configure Color and Opacity* from the menu. Click the colored box in the dialog that opens in order to select a new color.

After using the paint tools to adjust the selection as desired, convert from the quick mask view back to the normal selection view by clicking the icon in the lower left corner of the image window (currently displaying a red box). The selection is again displayed with the marching ants.

18.5.3 Applying and Removing Color

Most image editing involves applying or removing color. By selecting a part of the image, limit where color can be applied or removed. When you select a tool and move the cursor onto an image, the cursor's appearance changes to reflect the chosen tool. With many tools, an icon of the current tool is shown along with the arrow. For paint tools, an outline of the current brush is shown, allowing you to see exactly where you will be painting in the image and how large of an area will be painted.

18.5.3.1 Selecting Colors

Paint tools use the foreground color. To select the color, first click the display box of the foreground color in the Toolbox. A dialog with five tabs opens. These tabs provide different color selection methods. Only the first tab, shown in *Figure 18.2, "The Basic Color Selector Dialog"*, is described here. The new color is shown in *Current*. The previous color is shown in *Old*.

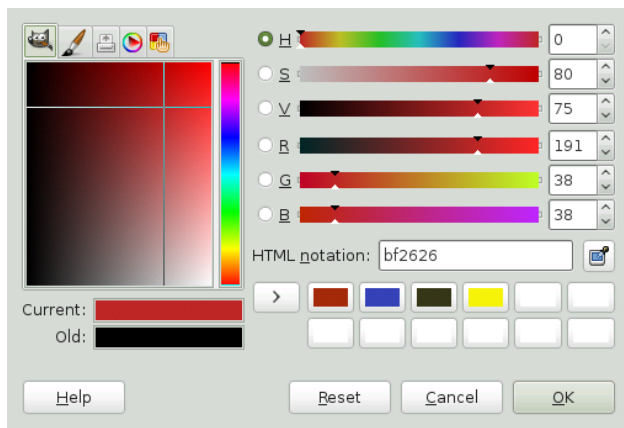


FIGURE 18.2: THE BASIC COLOR SELECTOR DIALOG

The easiest way to select a color is by using the colored areas in the boxes to the left. In the narrow vertical bar, click a color similar to the desired color. The larger box to the left then shows available nuances. Click the desired color. It is then shown in *Current*. If that color is not what you want, try again.

The arrow button to the right of *Current* enables the saving of a number of possible colors. Click the arrow to copy the current color to the history. A color can then be selected by clicking it in the history. A color can also be selected by directly entering its hexadecimal color code in *HTML Notation*.

The color selector defaults to selecting a color by hue, which is usually easiest for a new user. To select by saturation, value, red, green, or blue, select the corresponding radio button to the right. The sliders and number fields can also be used to modify the currently selected color. Experiment a bit to find out what works best for you.

When the desired color is shown in *Current*, click *OK*. To restore the original values shown when the dialog was opened, click *Reset*. To abort changing the color, click *Cancel*.

To select a color that already exists in your image, use the eye dropper tool. With the tool options, set whether the foreground or background color should be selected. Then click a point in the image that shows the desired color. When the color is right, click *Close* to close the tool's dialog.

18.5.3.2 Painting and Erasing

To paint and erase, use the tools from the toolbox. There are a number of options available to fine-tune each tool. Pressure sensitivity options apply only when a pressure-sensitive graphics tablet is used.

The pencil, brush, airbrush, and eraser work much like their real-life equivalents. The ink tool works like a calligraphy pen. Paint by clicking and dragging. The bucket fill is a method of coloring areas of an image. It fills based on color boundaries in the image. Adjusting the threshold modifies its sensitivity to color changes.

18.5.3.3 Adding Text

With the text tool, easily add text to an image. With the tool options, select the desired font, font size, color, justification, indent, and line spacing. Then click a starting point in the image. A small dialog opens in which to enter your text. Enter single or multiple lines of text then press *Close*.

The text tool creates text in a special layer. To work with the image after adding text, read [Section 18.5.6, “Layers”](#). When the text layer is active, it is possible to modify the text by clicking in the image to reopen the entry dialog. Change the settings by modifying the tool options.

18.5.3.4 Retouching Images—The Clone Tool

The clone tool is ideal for retouching images. It enables you to paint in an image using information from another part of the image. If desired, it can instead take information from a pattern. When retouching, it is usually a good idea to use a small brush with soft edges. In this way, the modifications can blend better with the original image.

To select the source point in the image, press and hold **Ctrl** while clicking the desired source point. Then paint with the tool, as usual. When you move the cursor while painting, the source point, marked by a cross, moves as well. If the *Alignment* is set to *None* (the default setting), the source resets to the original when you release the left mouse button.

18.5.4 Adjusting Color Levels

Images often need a little adjusting to get ideal print or display results. In many programs designed for inexperienced users, the brightness and contrast levels are modified. This can work and is also available in GIMP, but better results can be obtained by adjusting the color levels.



To do this, select *Colors > Levels*. A dialog opens for controlling the levels in the image. Good results can usually be obtained by clicking *Auto*. To make manual adjustments to all channels, use the dropper tools in *All Channels* to pick areas in the image that should be black, neutral gray, and white.

To modify a channel individually, select the desired channel in *Channel*. Then drag the black, white, and middle markers in the slider in *Input Levels*. Conversely, use the dropper tools to select points in the image that should serve as the white, black, and gray points for that channel. If *Preview* is checked, the image window shows a preview of the image with the modifications applied. When the desired result is achieved, press *OK* to apply the changes. With *Reset*, restore the original settings. *Cancel* aborts level adjustment.

18.5.5 Undoing Mistakes

Most modifications made in GIMP can be undone. To view a history of modifications, use the undo dialog included in the default window layout or open one from the image window menu with *Windows > Dockable Dialogs > Undo History*.

The dialog shows a base image and a series of editing changes that can be undone. Use the buttons to undo and redo changes. In this way, you can work back to the base image. If you undo a modification then make a new one, the undone modification cannot be redone.

Changes can also be undone and redone with the *Edit* menu. Alternatively, use the shortcuts  and .

18.5.6 Layers

Layers are a very important aspect of GIMP. By drawing parts of your image on separate layers, you can change, move, or delete those parts without damaging the rest of the image. To understand how layers work, imagine an image created from a stack of transparent sheets. Different parts of the image are drawn on different sheets. The stack can be rearranged, changing which parts are on top. Individual layers or groups of layers can shift position, moving sections of the image to other locations. New sheets can be added and others set aside.

Use the *Layers* dialog to view the available layers of an image. The text tool automatically creates special text layers when used. The active layer is highlighted. The buttons at the bottom of the dialog offer a number of functions. More are available in the menu opened when a layer is right-

clicked in the dialog. The two icon spaces before the image name are used for toggling image visibility (eye icon when visible) and for linking layers. Linked layers are marked with the chain icon and moved as a group.

18.5.7 Image Modes

GIMP has three image modes—RGB, Grayscale, and Indexed. RGB is a normal color mode and is the best mode for editing most images. Grayscale is used for black-and-white images. Indexed limits the colors in the image to a set number. It is mainly used for GIF images. If you need an indexed image, it is normally best to edit the image in RGB then convert to indexed right before saving. If you save to a format that requires an indexed image, GIMP offers to index the image when saving.

18.5.8 Special Effects

GIMP includes a wide range of filters and scripts for enhancing images, adding special effects to them or making artistic manipulations. They are available in *Filters*. Experimenting is the best way to find out what is available.

18.6 Printing Images

To print an image, select *File > Print* from the image menu. If your printer is configured in the system, it should appear in the list. You can configure printing options on *Page Setup* and *Image Settings* tabs.

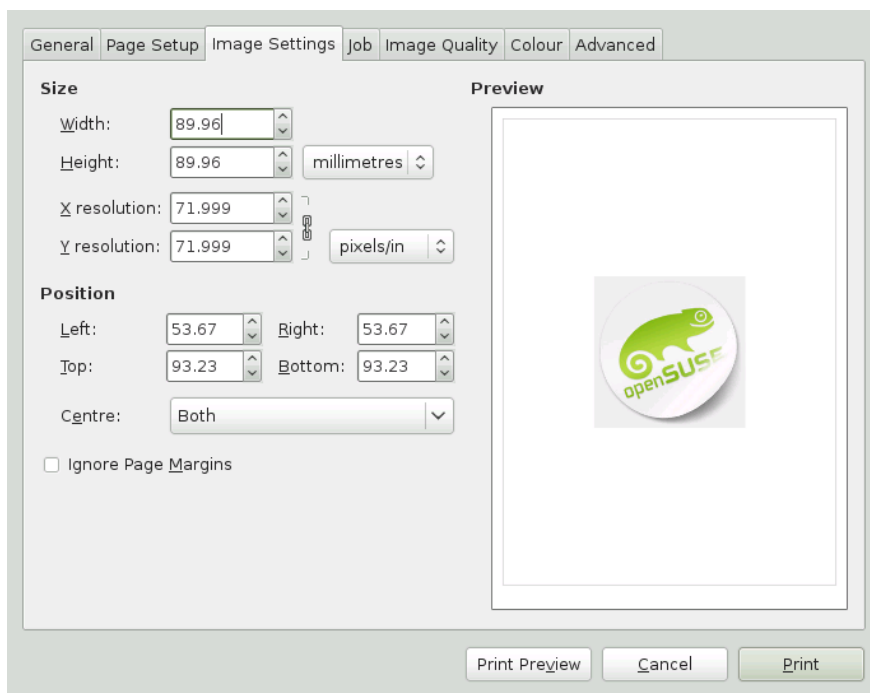




FIGURE 18.3: THE PRINT DIALOG

When satisfied with the settings, press *Print*. *Cancel* aborts printing.


18.7 For More Information

The following resources are very useful for users of GIMP. They contain much more information about GIMP than this chapter. If you want to use GIMP for more advanced tasks, you should not miss these resources.

- <http://www.gimp.org> is the official home page of The GIMP. News about GIMP and related software are regularly posted on the frontpage.
- *Help* provides access to the internal help system including extensive GIMP User Manual. The package `gimp-help` needs to be installed. This documentation is also available online in HTML and PDF formats at <http://docs.gimp.org>. Translations into many languages are available.
- A collection of many interesting GIMP tutorials is maintained at <http://gimp.org/tutorials/>. It contains basic tutorials for complete beginners as well as tutorials for advanced or expert users.

- Printed books about GIMP are published regularly. You will find a selection of the best ones with short annotations at <http://gimp.org/books/> .
- GIMP functionality can be extended with scripts and plug-ins. Many such scripts and plug-ins are distributed in the GIMP package, but others can be downloaded from the Internet. At <http://registry.gimp.org/> , you will find a database of GIMP scripts and plug-ins.

You can also use mailing lists or IRC channels to ask questions about GIMP. Always try to find answers in the documentation mentioned above or in mailing list archives before asking your question. The time of experienced users present on GIMP lists and channels is limited. Be polite and patient. It may take some time before your question is answered.

- There are a number of mailing lists about GIMP. You will find them at http://gimp.org/mail_lists.html . GIMP User list is the most appropriate place to ask user questions.
- There is a whole IRC network dedicated to GIMP and GNOME desktop environment—GIMPNet. You can connect to GIMPNet with your favorite IRC client by pointing it at the `irc.gimp.org` server. The `#gimp-users` channel is the right place to ask question about using GIMP. If you want to listen to developer's discussions, join the `#gimp` channel.

VIII Multimedia

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19 Totem: Playing Videos

Totem is the default movie player for the GNOME desktop. Totem provides the following multimedia features:

- Support for a variety of video and audio files
- A variety of zoom levels and aspect ratios, and a full screen view
- Seek and volume controls
- Playlists
- Complete keyboard navigation
- Video thumbnailer for GNOME
- Nautilus properties tab

To start Totem, click *Applications > Sound & Video > Videos*.

19.1 Using Totem

When you start Totem, the following window is displayed.

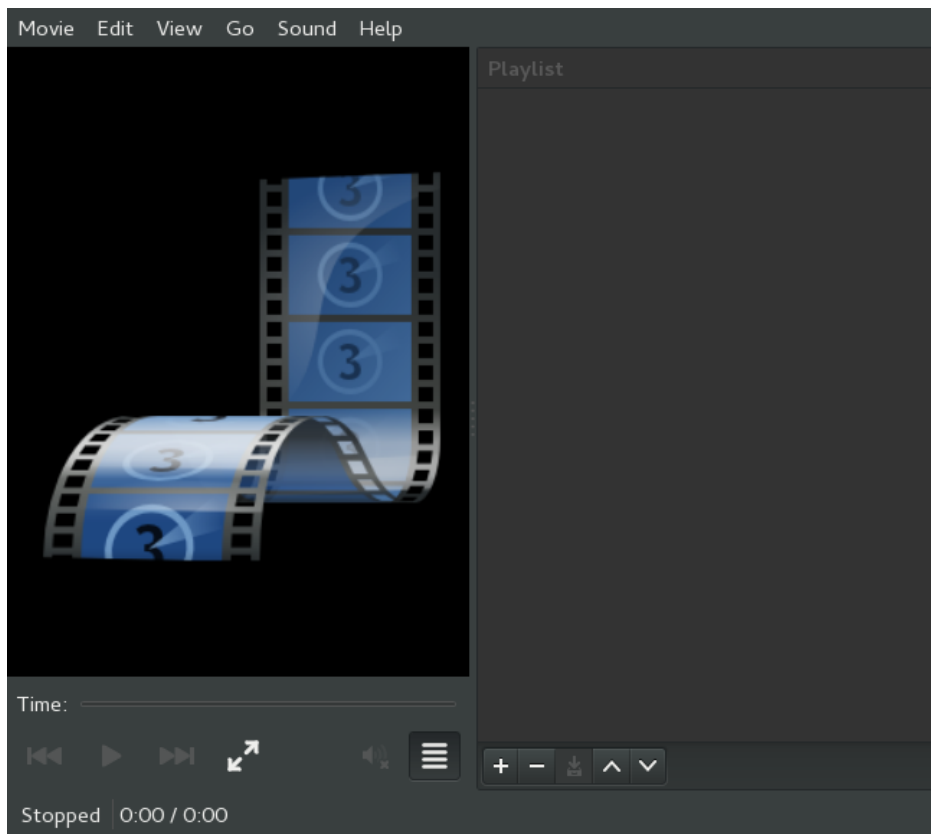


FIGURE 19.1: TOTEM MOVIE PLAYER START-UP WINDOW

19.1.1 Opening a Video or Audio File

1. Click *Movie > Open*.
2. Select the files you want to open, then click *Add*

You can also drag a file from another application (such as a file manager) to the Totem window. Totem opens the file and plays the movie or song. Totem displays the title of the movie or song beneath the display area and in the titlebar of the window.



Note: Unrecognized File Format

If you try to open a file format that Totem Movie Player does not recognize, the application displays an error message and recommends a suitable codec.

You can double-click a video or audio file in the Nautilus file manager to open it in the Totem window by default.


19.1.2 Opening a Video or Audio File By URI Location


1. Click *Movie > Open Location*.
2. Specify the URI location of the file you want to open, then click *Open*.

19.1.3 Playing a DVD, VCD, or CD

To play a DVD, VCD, or CD, insert the disc in the optical device of your computer, then click *Movie > Play Disc*.

To eject a DVD, VCD, or CD, click *Movie > Eject*.

To pause a movie or song that is playing, click the  button, or click *Movie > Play/Pause*. When you pause a movie or song, the statusbar displays *Paused* and the time elapsed on the current movie or song.

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

To view properties of a movie or song, click *View > Sidebar* to make the sidebar appear, then click *Properties* in the drop-down box. The dialog contains the title, artist, year, and duration of movie or song, video dimensions, codec, framerate, and the audio bitrate.

19.1.4 Seeking Through Movies or Songs

To seek through movies or songs, use any of the following methods:

To skip forward

To skip forward, click *Go > Skip Forward*.


To skip backward

To skip backward, click *Go > Skip Backward*.

To move to next movie or song

To move to the next one, click *Go > Next Chapter/Movie*, or click the  button.


To move to previous movie or song

To move to the previous movie or song, click *Go > Previous Chapter/Movie*, or click the  button.

19.1.5 Changing the Zoom Factor

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

To zoom to full screen mode

Click *View > Fullscreen*. To exit fullscreen mode, click the Leave Fullscreen button or press .

To zoom to half size (50%) of the original movie or visualization

Click *View > Fit Window to Movie > Resize 1:2*.

To zoom to size (100%) of the original movie or visualization

Click *View > Fit Window to Movie > Resize 1:1*.

To zoom to double size (200%) of the original movie or visualization

Click *View > Fit Window to Movie > Resize 2:1*.

To switch between different aspect ratios, click *View > Aspect Ratio*. The supported aspect ratios include:

- Auto
- Square
- 4:3 (TV)
- 16:9 (Widescreen)
- 2.11:1 (DVB)

The default aspect ratio is *Auto*.

19.1.6 Showing or Hiding Controls

To hide Totem window controls, click *View > Show Controls* and deselect the Show Controls option. To show the controls on the Totem Movie Player window, right-click the window, then select *Show Controls*. If the Show Controls option is selected, Totem Movie Player shows the menubar, time elapsed slider, seek control buttons, volume slider, and statusbar on the window. If the Show Controls option is not selected, the application hides these controls and shows only the display area.

19.1.7 Managing Playlists

To show the playlist, click *View > Sidebar*, then click *Playlist* at the top of the sidebar. The Playlist dialog is displayed.

You can use the Playlist dialog to do the following:

- **To add a track or movie:** Click the *Add* button. Select the file you want to add to the playlist, then click *OK*
- **To remove a track or movie:** Select the file names from the file name list box, then click *Remove*.
- **To save a playlist to file:** Click the *Save Playlist* button, then specify a file name
- **To move a track or movie up the playlist:** Select the file name from the file name list box, then click the *Move Up* button.
- **To move a track or movie down the playlist:** Select the file name from the file name list box, then click the *Move Down* button

To hide the playlist, click *View > Sidebar*, or click the *Sidebar* button.

To enable or disable repeat mode, click *Edit > Repeat Mode*. To enable or disable shuffle mode, click *Edit > Shuffle Mode*.

19.1.8 Choosing Subtitles

To choose the language of the subtitles, click *View > Subtitles > Select Text Subtitles*, then select the subtitles language (DVD) or subtitle file (AVI etc) you want to display.

To disable the display of subtitles, click *View > Subtitles > None*.

By default, Totem Movie Player chooses the same language for the subtitles that you use on your computer.

Totem Movie Player automatically loads and displays subtitles if the file that contains them has the same name as the video file and has an srt, asc, txt, sub, smi, or ssa file extension.

19.2 Modifying Totem Movie Player Preferences

To modify Totem Movie Player preferences, click *Edit > Preferences*. You can modify the following:

19.2.1 General Preferences

The Totem General Preferences let you select a network connection speed, specify if media files should be played from the last used position, and change the font and encoding used to display subtitles.

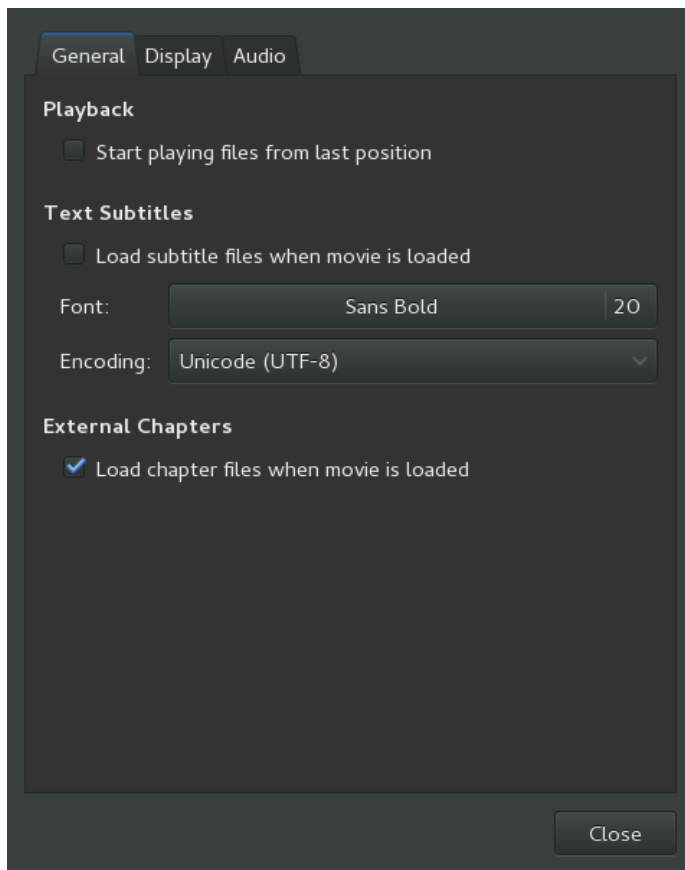


FIGURE 19.2: TOTEM GENERAL PREFERENCES

General Preferences include the following:

Playback

Lets you specify whether to start playing the movie from the last position.

Networking

Select network connection speed from the Connection speed drop-down list box.

Text Subtitles

Lets you specify whether to load the subtitles automatically, and change the font and encoding used to display the subtitles.

19.2.2 Display Preferences

The Totem Display Preferences let you choose to automatically resize the window when a new video is loaded, change the color balance, and configure visual effects when an audio file is played.

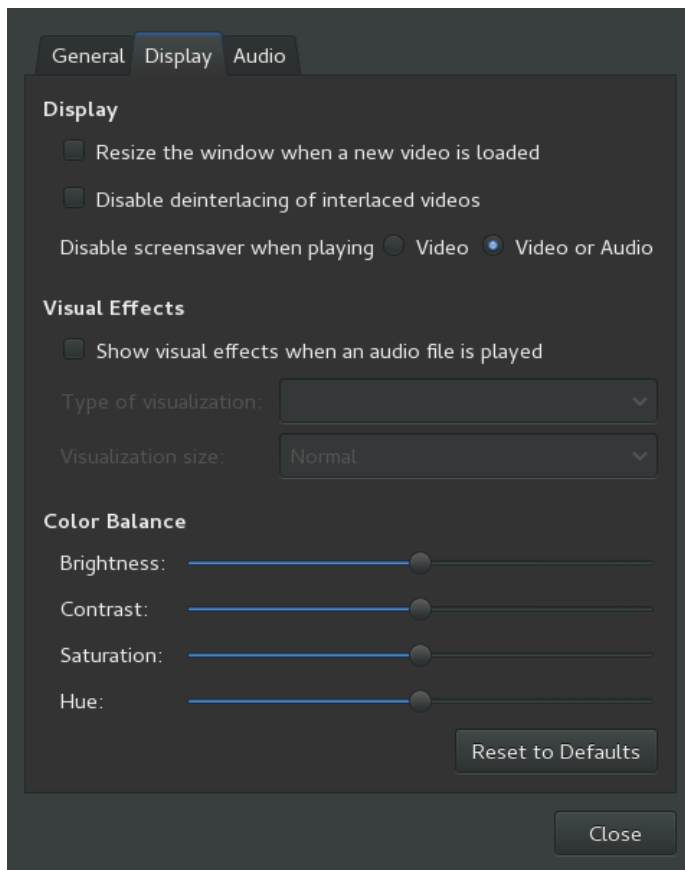


FIGURE 19.3: TOTEM DISPLAY PREFERENCES

Display Preferences include the following:

Automatically resize the window when a new video is loaded

Select this option if you want Totem Movie Player to automatically resize the window when a new video is loaded.

Also disable the screen saver when playing audio

Select this option if you want Totem Movie Player to automatically disable the desktop screen saver while an audio file is playing.

Visual Effects

You can choose to show visual effects when an audio file is playing, select the type of visualization you want to show, and the visualization size.

Color Balance

Specify the level of color brightness, contrast, saturation, and hue.

19.2.3 Audio Preferences

The Totem Audio Preferences dialog lets you select the audio output type.

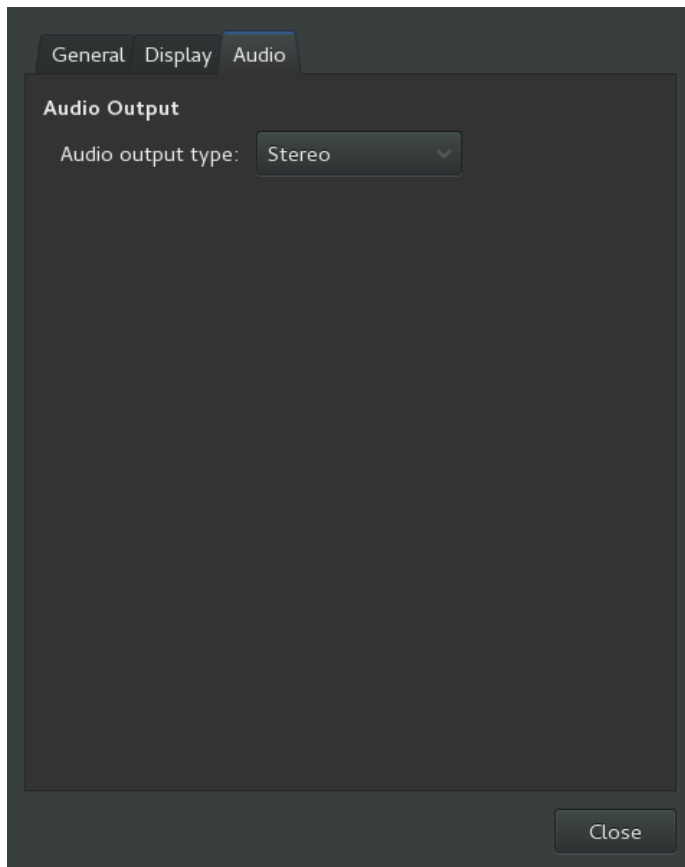


FIGURE 19.4: TOTEM AUDIO PREFERENCES

20 Brasero: Burning CDs and DVDs

Brasero is a GNOME program for writing data and audio CDs and DVDs. Start the program from the main menu or by pressing **Ctrl**–**F2** and entering the command **brasero**. The following sections brief you on how to start a basic burning process to get your first Linux-made CD or DVD.

20.1 Creating a Data CD or DVD

After starting Brasero for the first time, the main window appears as shown in *Figure 20.1*.



FIGURE 20.1: MAIN VIEW OF BRASERO

To create a data CD or DVD, proceed as follows:

1. Click *Data project* or select *Project > New Project > New Data Project* from the main menu. The project view appears.
2. Drag and drop the desired directories or individual files either from your file manager or by clicking the plus icon. To show your directory structure directly in Brasero, select *View > Show Side Panel* or press **F7**.
3. Optionally, save the project under a name of your choice with *Project > Save As*.

4. Name your medium. The original label is *Data disc (date)*.
5. Choose the output medium from the pull down menu next to the *Burn...* button (CD/DVD or in an ISO image file).
6. Click *Burn...* A new dialog box appears, depending on what medium you have selected in the previous step:
 - **CD/DVD.** You can define some parameters, like the burning speed or where to store temporary files. Under *Options* you can also choose whether to burn the image directly, close the session, verify the written data, and others.
 - **ISO Image.** Specify a file name for your ISO image file.
7. Start the process with *Burn*.

20.2 Creating an Audio CD

There are no significant differences between creating an audio CD and creating a data CD. Proceed as follows:

1. Select *Project > New Project > New Audio Project*.
2. Drag and drop the individual audio tracks to the project folder. The audio data must be in WAV or Ogg Vorbis format. Determine the sequence of the tracks by moving them up or down in the project folder.
3. Click *Burn* to open the Disc burning setup dialog box.
4. Specify a drive to write to.
5. Click *Properties* to adjust burning speed and other preferences. When burning audio CDs, choose a lower burning speed to reduce the risk of burning errors.
6. Click *Burn*.

20.3 Copying a CD or DVD

To copy a CD or DVD, proceed as follows:

1. Click *Disc Copy* or go to *Project > New Project > Copy Disc....* The CD/DVD copy options dialog box opens.
2. Specify the source drive you want to copy.
3. Specify a drive or image file to write to.
4. If necessary, change the burning speed, the temporary directory and other options in *Properties*.
5. Click *Copy*.

20.4 Writing ISO Images

If you already have an ISO image, click *Burn image* or go to *Project > New Project > Burn Image....* Choose the medium and writer and, if necessary, change parameters by clicking *Properties*. Choose the location of the image file with the pop-up menu labeled *Path*. Start the burning process and click *Burn*.


20.5 Creating a Multisession CD or DVD

Multisession discs can be used to write data in more than one burning session. This is useful, for example, for writing backups that are smaller than the media. In each session, you can add another backup file. One note of interest is that you are not only limited to data CDs or DVDs. You can also add audio sessions in a multisession disc.

To start a new multisession disc, do the following:

1. Start with a data disc first as described in *Section 20.1, "Creating a Data CD or DVD"*. You cannot start with an audio CD session. Make sure that you do not fill up the entire disc, because otherwise you cannot append a new session.
2. Click *Burn*. The *Disc Burning Setup* opens.
3. Select *Leave the disc open to add other files later* to make the disc multisession capable. Configure other options if needed.
4. Start the burning session with *Burn*.

20.6 For More Information

You can find more information about Brasero at <http://www.gnome.org/projects/brasero/> .

A Help and Documentation

SUSE® Linux Enterprise Server comes with various sources of information and documentation, many of which are already integrated in your installed system:

Desktop Help Center

The help center of the GNOME desktop (Help) provide central access to the most important documentation resources on your system, in searchable form. These resources include online help for installed applications, man pages, info pages, and the SUSE manuals delivered with your product. Learn more in [Section A.1, “Using GNOME Help”](#).

Separate Help Packages for Some Applications

When installing new software with YaST, the software documentation is installed automatically in most cases, and usually appears in the help center of your desktop. However, some applications, such as GIMP, may have different online help packages that can be installed separately with YaST and do not integrate into the help centers.

Documentation in `/usr/share/doc`

This traditional help directory holds various documentation files and the release notes for your system. Find more detailed information in *Book “Administration Guide” 35 “Help and Documentation”* 35.1 “Documentation Directory”.

Man Pages and Info Pages for Shell Commands

When working with the shell, you do not need to know the options of the commands by heart. Traditionally, the shell provides integrated help by means of man pages and info pages. Read more in *Book “Administration Guide” 35 “Help and Documentation”* 35.2 “Man Pages” and *Book “Administration Guide” 35 “Help and Documentation”* 35.3 “Info Pages”.

A.1 Using GNOME Help

On the GNOME desktop, to start Help directly from an application, either click the *Help* button or press **F1**. Both options take you directly to the application's documentation in the help center. However, you can also start Help from the *Applications* menu, or from the command line with **yelp** and then browse through the main window of the help center.

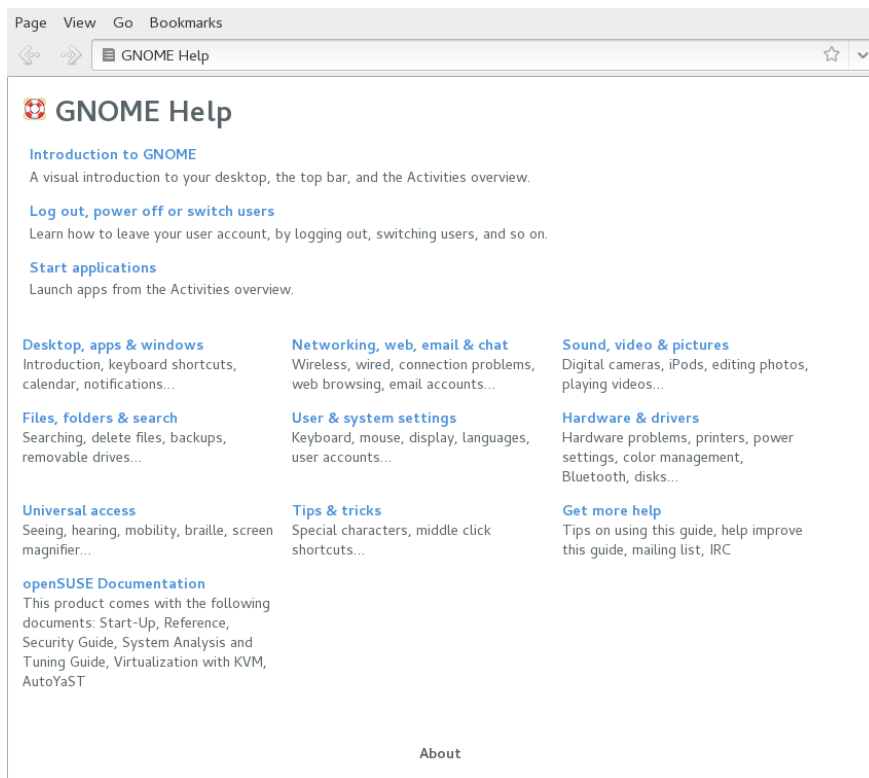


FIGURE A.1: MAIN WINDOW OF HELP


The menu and the toolbar provide options for navigating and customizing the help center, for searching and for printing contents from Help. The help topics are grouped into categories presented as links. Click one of the links to open a list of topics for that category. To search for an item, enter the search string into the search field at the top of the window.

A.2 Additional Help Resources

In addition to the online versions of the SUSE manuals installed under `/usr/share/doc`, you can also access the product-specific manuals and documentation on the Web. For an overview of all documentation available for SUSE Linux Enterprise Server check out your product-specific documentation Web page at <http://www.suse.com/documentation/>.

If you are searching for additional product-related information, you can also refer to the following Web sites:

- SUSE Knowledgebase (<http://www.suse.com/support/kb/>)
- SUSE Forums (<http://forums.suse.com/>)


- SUSE Conversations (<http://www.suse.com/communities/conversations/>) 
- GNOME Documentation Web site (<http://www.gnome.org/>) 

You might also want to try general-purpose search engines. For example, you might try the search terms Linux CD-RW help or LibreOffice file conversion problem if you were having trouble with the CD burning or with LibreOffice file conversion.

A.3 For More Information

Apart from the product-specific help resources, there is a broad range of information available for Linux topics.

A.3.1 The Linux Documentation Project

The Linux Documentation Project (TLDP) is run by a team of volunteers who write Linux-related documentation (see <http://www.tldp.org> ). The set of documents contains tutorials for beginners, but is mainly focused on experienced users and professional system administrators. TLDP publishes HOWTOs, FAQs, and guides (handbooks) under a free license. Parts of the documentation from TLDP is also available on SUSE Linux Enterprise Server


A.3.1.1 HOWTOs

HOWTOs are usually a short, informal, step-by-step guides to accomplishing specific tasks. HOWTOs can also be found in the package howto and are installed under /usr/share/doc/howto.


A.3.1.2 Frequently Asked Questions

FAQs (frequently asked questions) are a series of questions and answers. They originate from Usenet newsgroups where the purpose was to reduce continuous reposting of the same basic questions.

A.3.1.3 Guides

Manuals and guides for various topics or programs can be found at <http://www.tldp.org/guides.html> . They range from *Bash Guide for Beginners* to *Linux File System Hierarchy* to *Linux Administrator's Security Guide*. Generally, guides are more detailed and exhaustive than HOW-TOs or FAQs. They are usually written by experts for experts.

A.3.2 Wikipedia: The Free Online Encyclopedia

Wikipedia is “a multilingual encyclopedia designed to be read and edited by anyone” (see <http://en.wikipedia.org> ). The content of Wikipedia is created by its users and is published under a dual free license (GFDL and CC-BY-SA). However, as Wikipedia can be edited by any visitor, it should be used only as a starting point or general guide. There is much incorrect or incomplete information in it.

A.3.3 Standards and Specifications

There are various sources that provide information about standards or specifications.

<http://www.linux-foundation.org/en/LSB> 

The Linux Foundation is an independent nonprofit organization that promotes the distribution of free and open source software. The organization endeavors to achieve this by defining distribution-independent standards. The maintenance of several standards, such as the important LSB (Linux Standard Base), is supervised by this organization.

<http://www.w3.org> 

The World Wide Web Consortium (W3C) is one of the best-known standards organizations. It was founded in October 1994 by Tim Berners-Lee and concentrates on standardizing Web technologies. W3C promotes the dissemination of open, license-free, and manufacturer-independent specifications, such as HTML, XHTML, and XML. These Web standards are developed in a four-stage process in *working groups* and are presented to the public as *W3C recommendations* (REC).

<http://www.oasis-open.org> 

OASIS (Organization for the Advancement of Structured Information Standards) is an international consortium specializing in the development of standards for Web security, e-business, business transactions, logistics, and interoperability between various markets.

<http://www.ietf.org> ↗

The Internet Engineering Task Force (IETF) is an internationally active cooperative of researchers, network designers, suppliers, and users. It concentrates on the development of Internet architecture and the smooth operation of the Internet by means of protocols. Every IETF standard is published as an RFC (Request for Comments) and is available free-of-charge. There are six types of RFC: proposed standards, draft standards, Internet standards, experimental protocols, information documents, and historic standards. Only the first three (proposed, draft, and full) are IETF standards in the narrower sense (see <http://www.ietf.org/rfc/rfc1796.txt> ↗).

<http://www.ieee.org> ↗

The Institute of Electrical and Electronics Engineers (IEEE) is an organization that draws up standards in the areas of information technology, telecommunication, medicine and health care, transport, and others. IEEE standards are subject to a fee.

<http://www.iso.org> ↗

The ISO Committee (International Organization for Standards) is the world's largest developer of standards and maintains a network of national standardization institutes in over 140 countries. ISO standards are subject to a fee.

<http://www.din.de> ↗ ,

<http://www.din.com> ↗

The Deutsches Institut für Normung (DIN) is a registered technical and scientific association. It was founded in 1917. According to DIN, the organization is “the institution responsible for standards in Germany and represents German interests in worldwide and European standards organizations.”

The association brings together manufacturers, consumers, trade professionals, service companies, scientists and others who have an interest in the establishment of standards. The standards are subject to a fee and can be ordered using the DIN home page.

B Documentation Updates

This chapter lists content changes for this document since the release of SUSE® Linux Enterprise Server 11 SP3.

This manual was updated on the following dates:

- *Section B.1, “October 2014 (Initial Release of SUSE Linux Enterprise Server 12)”*

B.1 October 2014 (Initial Release of SUSE Linux Enterprise Server 12)

General

- Removed all KDE documentation and references because KDE is no longer shipped.
- Removed all references to SuSEconfig, which is no longer supported (Fate#100011).
- Move from System V init to systemd (Fate#310421). Updated affected parts of the documentation.
- YaST Runlevel Editor has changed to Services Manager (Fate#312568). Updated affected parts of the documentation.
- Removed all references to ISDN support, as ISDN support has been removed (Fate#314594).
- Removed all references to the YaST DSL module as it is no longer shipped (Fate#316264).
- Removed all references to the YaST Modem module as it is no longer shipped (Fate#316264).
- Btrfs has become the default file system for the root partition (Fate#315901). Updated affected parts of the documentation.
- The `dmesg` now provides human-readable time stamps in `ctime()`-like format (Fate#316056). Updated affected parts of the documentation.

- syslog and syslog-ng have been replaced by rsyslog (Fate#316175). Updated affected parts of the documentation.
- MariaDB is now shipped as the relational database instead of MySQL (Fate#313595). Updated affected parts of the documentation.
- SUSE-related products are no longer available from <http://download.novell.com> but from <http://download.suse.com>. Adjusted links accordingly.
- Novell Customer Center has been replaced with SUSE Customer Center. Updated affected parts of the documentation.
- `/var/run` is mounted as tmpfs (Fate#303793). Updated affected parts of the documentation.
- The following architectures are no longer supported: Itanium and x86. Updated affected parts of the documentation.
- The traditional method for setting up the network with `ifconfig` has been replaced by `wicked`. Updated affected parts of the documentation.
- A lot of networking commands are deprecated and have been replaced by newer commands (`ip` in most cases). Updated affected parts of the documentation.

arp: `ip neighbor`

ifconfig: `ip addr`, `ip link`

iptunnel: `ip tunnel`

iwconfig: `iw`

nameif: `ip link`, `ifrename`

netstat: `ss`, `ip route`, `ip -s link`, `ip maddr`

route: `ip route`

- Numerous small fixes and additions to the documentation, based on technical feedback.

Changes for This Guide

- Merged the *Application Guide* into this guide.
- Merged the *LibreOffice.org Quick Start* into this guide.
- Documentation updated from GNOME 2 to GNOME 3. Major user interface changes.

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