

SUSE Linux Enterprise Desktop

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GNOME User Guide



GNOME User Guide

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About This Guide

This manual introduces you to the GNOME graphical desktop environment as implemented in SUSE® Linux Enterprise Desktop and shows you how to configure it to meet your personal needs and preferences. It also introduces you to several programs and services, including office programs such as OpenOffice.org, Web browsers, file managers, scanning tools, and image editing tools. 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 subdivided into the following parts:

GNOME Desktop

Get to know your GNOME desktop and learn how to cope with basic and daily tasks, using the central GNOME applications and some small utilities. Get an impression of the possibilities GNOME offers to modify and individualize your desktop according to your needs and wishes.

Office and Collaboration

Use the office and collaboration software your SUSE Linux Enterprise offers, such as the OpenOffice.org suite, several e-mailing and calendaring programs, and applications for online conversations. Also find vital information concerning the management and exchange of data on your system: how to share files on the network, how to effectively search and encrypt data, and how to manage printers.

Internet

Learn how to use NetworkManager to connect to the Internet. Explore the Internet applications included in your SUSE Linux Enterprise, such as the Firefox Web browser, or a news feed reader.

Multimedia

Find topics such as graphics applications, digital cameras, sound applications, and CD and DVD writers.

1 Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation and enter your comments there.

2 Additional Documentation

There are other manuals available on this product. If you want to have a look at the other end user documentation for SUSE Linux Enterprise, the following manuals might be interesting:

Installation Quick Start

Lists the system requirements and guides you step-by-step through the installation of your SUSE Linux Enterprise.

KDE User Guide

This manual introduces the KDE desktop of your SUSE Linux Enterprise and a variety of applications you will encounter when working with the KDE desktop. It guides you through using these applications and helps you perform key tasks. It is intended mainly for end users who want to make efficient use of applications running on the KDE desktop.

For an overview of all manuals for SUSE Linux Enterprise, refer to <http://www.novell.com/documentation/sled10/>, where you can also download the manuals, or access the information online in the help center of your desktop.

3 Documentation Conventions

The following typographical conventions are used in this manual:

- `/etc/passwd`: filenames and directory 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
- *Dancing Penguins* (Chapter *Penguins*, ↑Another Manual): This is a reference to a chapter in another manual.

Part I. GNOME Desktop

Getting Started with the GNOME Desktop

1

This chapter assists you in becoming familiar with the conventions, layout, and common tasks of the GNOME desktop as implemented in SUSE® Linux Enterprise Desktop.

1.1 Logging in and Selecting a Desktop

When you start your system, you are prompted to enter your username and password. This is the username and password you created during installation. If you did not install the system, check with your system administrator for the username and password.

The login screen has the following items:

Login prompt

Enter your username and password to log in.

Language menu

Select a language for your session.

Session menu

Select the desktop to run during your session. If other desktops are installed, they appear in the list.

Reboot

Restarts the computer.

Shut Down

Shuts down the computer.

1.1.1 What Is a Session?

A *session* is the period of time from when you log in to when you log out. The login screen offers several login options. For example, you can select the language of your session so that text that appears in the interface is presented in that language.

After your username and password are authenticated, the Session Manager starts. The Session Manager lets you save certain settings for each session. It also lets you save the state of your most recent session and return to that session the next time you log in.

The Session Manager can save and restore the following settings:

- Appearance and behavior settings, such as fonts, colors, and mouse settings.
- Applications that you were running, such as a file manager or an OpenOffice.org program.

TIP

You cannot save and restore applications that Session Manager does not manage. For example, if you start the vi editor from the command line in a terminal window, Session Manager cannot restore your editing session.

For information on configuring session preferences, see [Section 2.5.8, “Managing Sessions”](#) (page 99).

1.1.2 Switching Desktops

If you installed both the GNOME and the KDE desktops, use the following instructions to switch desktops.

- 1 Click *Computer > Logout > Log Out*.

In KDE, click the main menu button and select *Log Out > End Current Session*

.

- 2 On the login screen, click *Session*.
- 3 Select the desktop you want (*GNOME* or *KDE*), then click *OK*.
- 4 Type your username, then press Enter.
- 5 Type your password, then press Enter.

1.1.3 Locking Your Screen

To lock the screen, you can do either of the following:

- Click *Computer > Lock Screen*.
- If the *Lock* button is present on a panel, click it.

To add the *Lock* button to a panel, right-click the panel and then click *Add to Panel > Lock Screen*.

When you lock your screen, the screen saver starts. To lock your screen correctly, you must have a screen saver enabled. To unlock the screen, move your mouse to display the locked screen dialog. Enter your username and password, then press Enter.

For information on configuring your screen saver, see [Section 2.3.5, “Configuring the Screen Saver”](#) (page 78).

1.2 Logging Out

When you are finished using the computer, you can log out and leave the system running, or restart or shut down the computer.

1.2.1 Logging Out or Switching Users

- 1 Click *Computer > Logout*.
- 2 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.

1.2.2 Restarting or Shutting Down the Computer

1 Click *Computer > Shutdown*.

2 Select one of the following options:

Shutdown

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

Restart

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

Sleep

Puts your computer in a temporary state that conserves power. The state of your session is preserved, however, including all applications you have running and all documents you have open.

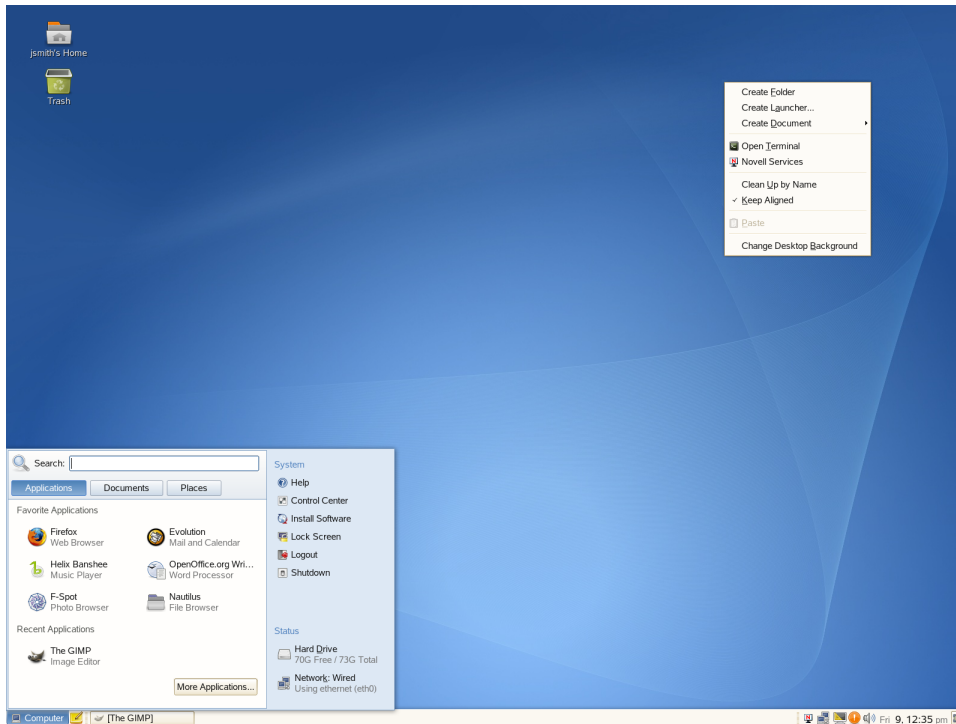
Hibernate

Suspends your session, using no power until the computer is restarted. The state of your session is preserved, however, including all applications you have running and all documents you have open.

1.3 Desktop Basics

As with other common desktop products, the main components of the GNOME desktop are icons that link to files, folders, or programs, as well as the panel at the bottom of the screen (similar to the Task Bar in Windows). Double-click an icon to start its associated program. Right-click an icon to access additional menus and options. You can also right-click any empty space on the desktop to access additional menus for configuring or managing the desktop itself.

Figure 1.1 *GNOME Desktop*



By default, the desktop features two key icons: your personal Home folder, and a trash can for deleted items. Other icons representing devices on your computer, such as CD drives, might also be present on the desktop. If you double-click your Home folder, the Nautilus file manager starts and displays the contents of your home directory. For more information about using Nautilus, see [Section 1.5, “Managing Folders and Files with Nautilus”](#) (page 17).

Right-clicking an icon displays a menu offering file operations, like copying, cutting, or renaming. Selecting *Properties* from the menu displays a configuration dialog. The title of an icon as well as the icon itself can be changed with *Select Custom Icon*. The *Emblems* tab lets you add graphical descriptive symbols to the icon. The *Permissions* tab lets you set access permissions for the selected files. The *Notes* tab lets you manage comments. The menu for the trash can additionally features the *Empty Trash* option, which deletes its contents.

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

To create a link on the desktop to a folder or a file, access the object in question in *File Manager* by right-clicking the object and then clicking *Make Link*. Drag the link from the *File Manager* window and drop it onto the desktop.

1.3.1 Default Desktop Icons

To remove an icon from the desktop, simply drag it onto the trash can. However, be careful with this option: if you move folder or file icons to the trash can, the actual data is deleted. If the icons only represent links to a file or to a directory, only the links are deleted.

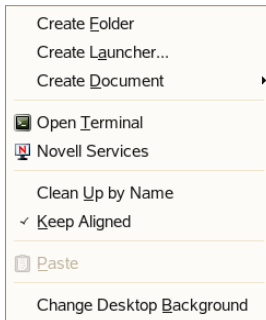
NOTE

You cannot move the *Home* icon to the trash.

1.3.2 Desktop Menu

Right-clicking an empty spot on the desktop displays a menu with various options. Click *Create Folder* to create a new folder. Create a launcher icon for an application with *Create Launcher*. Provide the name of the application and the command for starting it, then select an icon to represent it. You can also change the desktop background and align desktop icons.

Figure 1.2 *GNOME Desktop Menu*



1.3.3 Bottom Panel

The desktop includes a panel across the bottom of the screen. The bottom panel contains the Computer menu (similar to the Start menu in Windows) and the icons of all applications currently running. You can also add applications and applets to the panel for easy access. If you click the name of a program in the taskbar, the program's window is moved to the foreground. If the program is already in the foreground, a mouse click minimizes it. Clicking a minimized application reopens the respective window.

Figure 1.3 *GNOME Bottom Panel*



The *Show Desktop* icon is on the right side of the bottom panel. This icon minimizes all program windows and displays the desktop. Or, if all windows are already minimized, it opens them up again.

If you right-click an empty spot in the panel, a menu opens, offering the options listed in the following table:

Table 1.1 *Panel Menu Options*

Option	Description
<i>Add to Panel</i>	Opens a menu list of applications and applets that can be added to the panel.

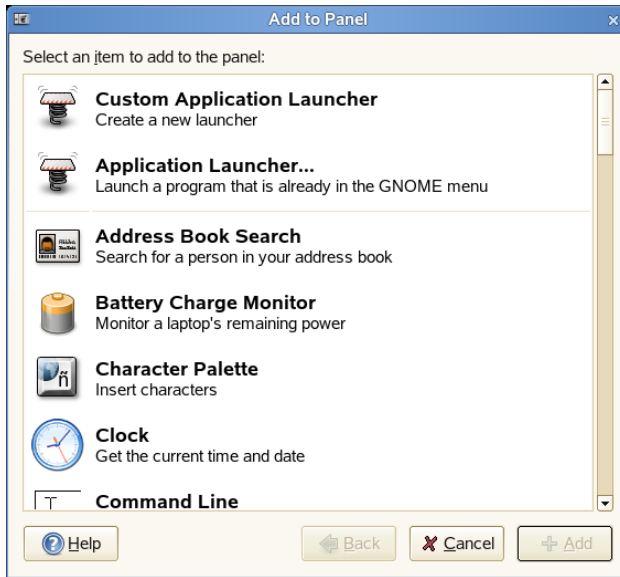
Option	Description
<i>Properties</i>	Modifies the properties for this panel.
<i>Delete This Panel</i>	Removes the panel from the desktop. All of the panel settings are lost.
<i>Allow Panel to be Moved/Lock Panel Position</i>	Lets you drag the panel to another side of the screen, or locks the panel in its current position.
<i>New Panel</i>	Creates a new panel and adds it to the desktop.
<i>Help</i>	Opens the Help Center.
<i>About Panels</i>	Opens information about the panel application.

1.3.4 Adding Applets and Applications to the Panel

You can add applications and applets to the bottom panel for quick access. An applet is a small program, while an application is usually a more robust stand-alone program. Adding an applet puts useful utilities where you can easily access them.

The GNOME desktop comes with many applets. You can see a complete list by right-clicking the bottom panel and selecting *Add to Panel*.

Figure 1.4 *Add to Panel Dialog Box*



Some useful applets include the following:

Table 1.2 *Some Useful Applets*

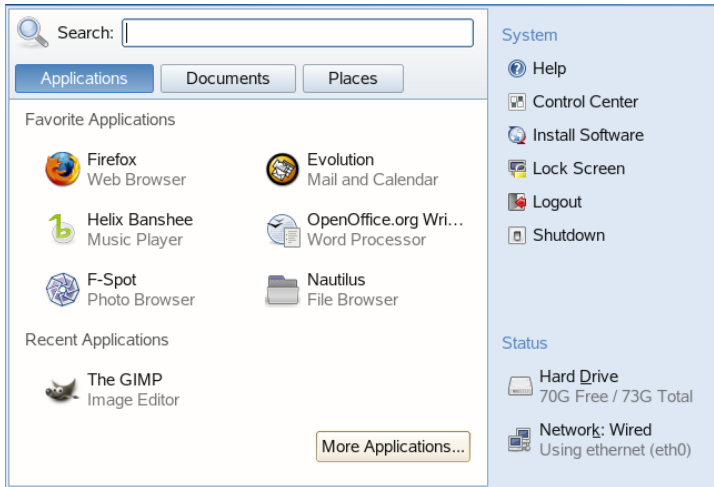
Applet	Description
Dictionary Lookup	Look up a word in an online dictionary.
Force Quit	Terminate an application. This is especially useful if you want to terminate an application that is no longer responding.
Search for Files	Find files, folders, and documents on the computer.
Sticky Notes	Create, display, and manage sticky notes on your desktop.
Traditional Main Menu	Access programs from a menu like the one in previous versions of GNOME. This is especially useful for people who are used to earlier versions of GNOME.

Applet	Description
Volume Control	Increase or decrease the sound volume.
Weather Report	Display current weather information for a specified city.
Workspace Switcher	Access additional work areas, called workspaces, through virtual desktops. For example, you can open applications in different workspaces and use them on their own desktops without the disorder from other applications.

1.4 Using the Main Menu

Click *Computer* on the far left of the bottom panel to open the main menu. Commonly used applications appear in the main menu, along with recently used applications. You can also click *Documents* to display your recent documents, or click *Places* to display your favorite places (such as your home directory or the desktop). Click *More Applications* to access additional applications, listed in categories. Use the options on the right to access Help, install additional software, open the GNOME Control Center, lock your screen, log out of the desktop, or check the status of your hard drive and network connections.

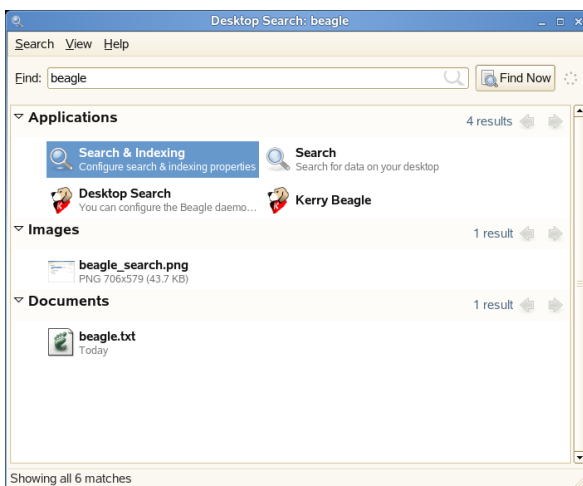
Figure 1.5 *Main Menu*



The main menu contains several elements. Each of these elements is described in the following sections.

1.4.1 Search Bar

The search bar helps you find applications and files on your system. Enter your search terms in the *Search* field, then press Enter. The results are displayed in the *Desktop Search* dialog box.



You can use the results lists to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you want. The options available for an item depend on the type of file it is. Clicking a file in the list displays a preview of the file and information such as the title, path, and when the file was last modified or accessed.

Use the *Search* menu to limit your search to files in a specific location, such as your address book or Web pages, or to display only a specific type of file in your results list. The *Sort* menu lets you sort the items in your results list according to name, relevance, or the date the file was last modified.

For more information about using the GNOME desktop's search function, see [Chapter 9, Searching with Beagle](#) (page 195).

1.4.2 Main Menu Tabs

You can determine which icons appear in the main menu by clicking the *Applications*, *Documents*, or *Places* tabs.

Favorite Applications

By default, *Favorite Applications* shows icons for several commonly used applications. Use this view to show the applications you use most often.

To add an item to your *Favorite Applications*:

- 1 Click *Computer > More Applications*.
- 2 Right-click the application you want to add.
- 3 Select *Add to Favorites*.

The selected application is added to your *Favorite Applications*.

To remove an item from your *Favorite Applications*:

- 1 Click *Computer*.
- 2 Make sure that your *Favorite Applications* appear in the main menu.

If *Favorite Applications* does not appear on the main menu, click *Applications*.

- 3 Right-click the item you want to remove.
- 4 Select *Remove from Favorites*.

The removed application no longer appears in your *Favorite Applications* view.

Recent Applications

Recent Applications shows the last two applications you have started. Use this view to quickly find applications you have used recently.

Recent Documents

Click the *Documents* tab to display the last several documents you have opened. Use this view to quickly locate the documents you worked on most recently. Click *More Documents* to open the file browser.

Recent Places

Click the *Places* tab to display the last several places you have opened. Use this view to quickly locate the places you worked on most recently. Click *More Places* to open the file browser.

1.4.3 System

System provides shortcuts to several system applications.

Table 1.3 *System Shortcuts*

Application	Description
Help	Opens the <i>Help Center</i> , which provides online documentation for your system.
Control Center	Helps you customize and configure your system. For more information, see Chapter 2, Customizing Your Settings (page 55).
Install Software	Opens the <i>Software Installer</i> , which guides you through the process of installing new software.
Lock Screen	Locks your system so nobody can access it while you are away. Enter your password to unlock the system.
Log Out	Opens the <i>Log Out</i> dialog, where you can log out or switch users.
Shutdown	Opens the <i>Shutdown</i> dialog, where you can shut down or restart your system, or suspend the computer.

1.4.4 Status

Status displays information about your hard drive and network connection, including the amount of available space on your hard disk and the type of network connection you are using.

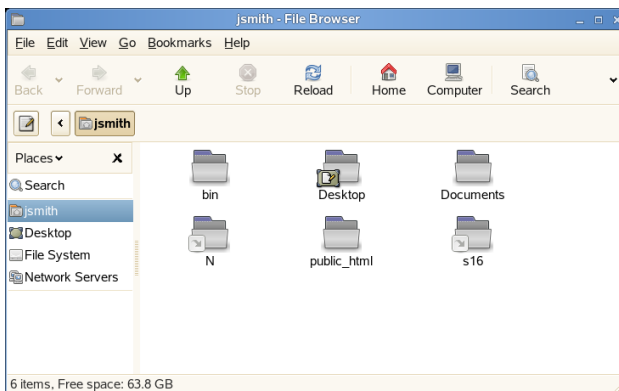
1.5 Managing Folders and Files with Nautilus

Use the Nautilus File Manager to create and view folders 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 *Computer > Nautilus File Browser*.
- Double-click your *Home* directory icon on the desktop.
- Click *Computer > More Applications > Browse > Home Folder* or *Nautilus File Browser*

Figure 1.6 *File Manager*



The elements of the Nautilus window include the following:

Menu

Lets you perform most tasks.

Toolbar

Lets you quickly navigate among files and folders, and provides access to files and folders.

Location Bar

Lets you locate files, folders, and URI sites.

Side Pane

Lets you navigate or display information about the selected file or folder. Use the drop-down list 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.

View Pane

Displays folders and files. Use the options on the *View* menu to increase or decrease the size of content in the view pane and to display items as a list or as icons.

Status Bar

Displays the number of items in a folder and gives the available free space. When a file is selected, the status bar displays the filename and size.

1.5.1 File Manager Navigation Shortcuts

Some simple shortcuts for navigating in the file manager include the following:

Table 1.4 *File Manager Navigation Shortcuts*

Shortcut	Description
<— or Alt + ↑	Opens the parent folder.
↑ or ↓	Selects an item.
Alt + ↓, or Enter	Opens an item.
Shift + Alt + ↓	Opens an item and closes the current folder.

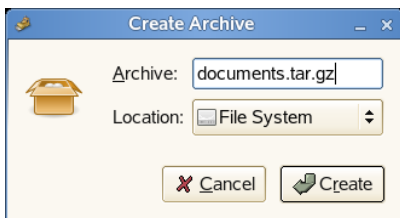
Shortcut	Description
Shift + Alt + ↑	Opens the parent folder and closes the current folder.
Shift + Ctrl + W	Closes all parent folders.
Ctrl + L	Opens a location by specifying a path or URL.
Alt + Home	Opens your home directory.

For more information, click *Help > Contents* in the file manager.

1.5.2 Archiving Folders

If you have files you have not used in a while but want to keep on your computer, you can compress the files into a tape archive (TAR) format.

- 1 In the Nautilus view pane, right-click the folder you want to archive, then click *Create Archive*.



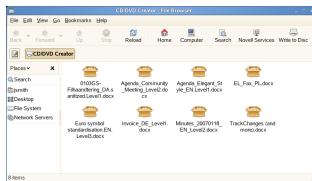
- 2 Accept the default archive filename or provide a new name. Use `tar.gz` for the most common archive form.
- 3 Specify a location for the archive file, then click *Create*.

To extract an archived file, right-click the file and select *Extract Here*.

1.5.3 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 > Audio & Video > GNOME CD/DVD Creator*, or insert a blank disk and click *Make Data CD/DVD* or *Make Audio CD/DVD*.
- 2 Copy the files you want to put on the CD or DVD into the Nautilus *CD/DVD Creator* window.



- 3 Click *Write to Disk*.
- 4 Modify information in the *Write to Disk* dialog box or accept the defaults, then click *Write*.

The files are burned to the disk. This could take a few minutes, depending on the amount of data being burned and the speed of your burner.

You can also use the Helix* Banshee™ music player to burn audio and MP3 CDs.

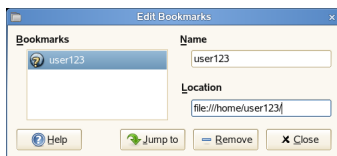
1.5.4 Using Bookmarks

Use the Nautilus Bookmarks feature to mark your favorite folders.

- 1 Select the folder or item you want to create a bookmark for.
- 2 Click *Bookmarks > Add Bookmark*. The bookmark is added to the list, with the folder name as the bookmark name. When you bookmark a file, it is the folder that is actually bookmarked.

- 3 To select an item from your bookmarks list, click *Bookmarks*, then click the desired bookmark in the list.

You can also organize your bookmarks list by clicking *Bookmarks > Edit Bookmarks* and making your selections in the dialog box.



To change the order of your bookmarks, click a bookmark and drag it to the desired location.

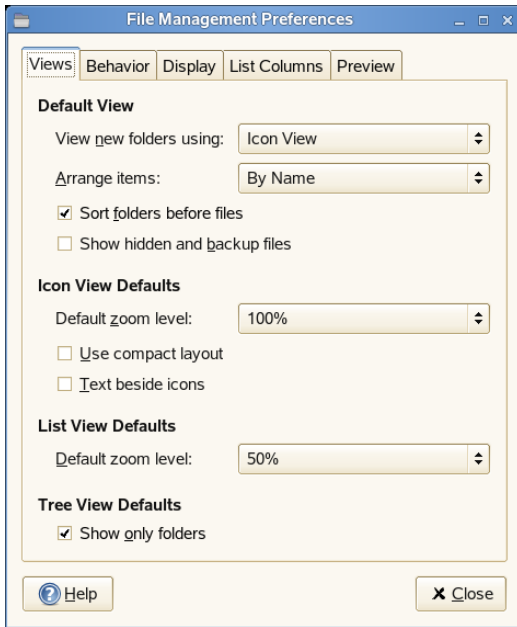
1.5.5 File Manager Preferences

You can change the file manager preferences by clicking *Edit > Preferences*. The configurable preferences are organized on five tabs:

Views

To configure the appearance of the file manager, click *Edit > Preferences > Views*.

Figure 1.7 *File Manager Views Dialog Box*



Select from the following options:

Table 1.5 *File Manager Views Options*

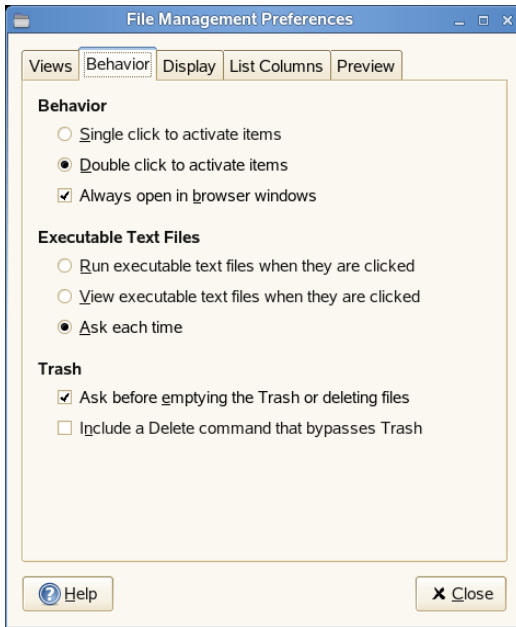
Section	Option	Description
<i>Default View</i>	View new folders using	Determines whether new folders are displayed as icons or as a list.
	Arrange items	Sets the order items are listed in. Items can be listed by name, size, type, modification date, or emblems.
	Sort folder before files	Places this folder at the top of the list, if this check box is selected (the default).
	Show hidden and backup files	Shows hidden files and backup files in your directories. If this check box is not selected

Section	Option	Description
		(the default), hidden and backup files do not appear.
<i>Icon View Defaults</i>	Default zoom level	Sets the size of items that appear in the file manager.
	Use compact layout	Displays items closer together.
	Text beside icons	Displays icon captions next to the icons, rather than under them.
<i>List View Defaults</i>	Default zoom level	Determines the size of items that appear in the list view.
<i>Tree View Defaults</i>	Show only folders	When selected, displays on folders in the tree in the side pane.

Behavior

To configure the behavior of the file manager, click *Edit > Preferences > Behavior*.

Figure 1.8 *File Manager Behavior Dialog Box*



Select from the following options:

Table 1.6 *File Manager Behavior Options*

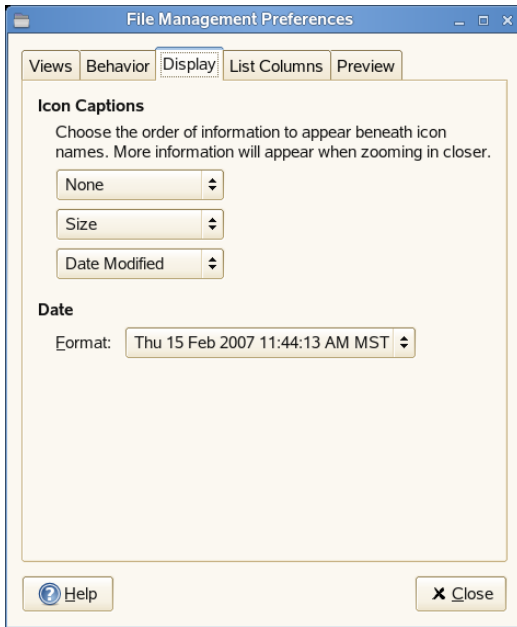
Option	Description
<i>Single-click to activate items</i>	Performs the default action for an item when you click the item. If this option is selected and you point to an item, the title of the item is underlined.
<i>Double-click to activate items</i>	Performs the default action for an item when you double-click the item.
<i>Always open in browser windows</i>	Opens the file manager in browser mode whenever you open it.

Option	Description
<i>Run executable text files when they are clicked</i>	Runs an executable file when you click the file. An executable file is a text file than can execute (that is, a shell script).
<i>View executable text files when they are clicked</i>	Displays the contents of an executable file when you click the file.
<i>Ask each time</i>	Displays a dialog when you click an executable file. The dialog asks whether you want to execute the file or display the file.
<i>Ask before emptying the Trash or deleting files</i>	Displays a confirmation message before the Trash is emptied or before files are deleted.
Include a <i>Delete</i> command that bypasses Trash	Adds a <i>Delete</i> menu item to the <i>Edit</i> menu and the pop-up menu that is displayed when you right-click a file, folder, or desktop object. When you select an item and click <i>Delete</i> , the item is immediately deleted from your file system.

Display

To configure the way icon captions and dates appear in the file manager, click *Edit > Preferences > Display*.

Figure 1.9 *File Manager Display Dialog Box*



Select from the following options:

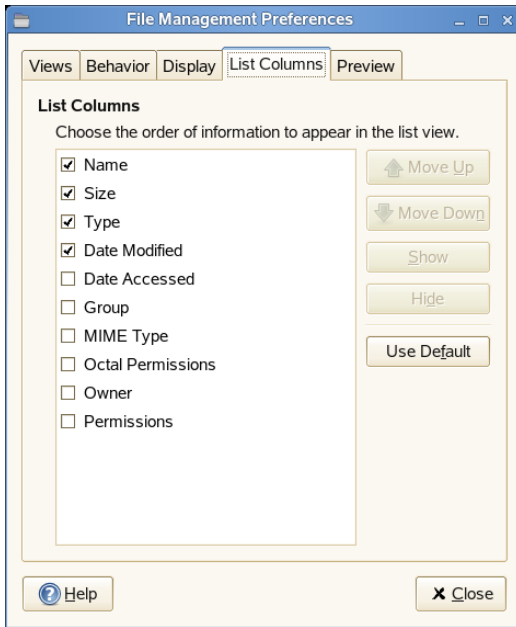
Table 1.7 *File Manager Display Options*

Option	Description
<i>Icon Captions</i>	Sets the order of information to appear beneath icon names. You can set three information types, in the order they appear.
<i>Date</i>	Configures the date format.

List Columns

To configure the columns that appear in the file manager, as well as the order in which they appear, click *Edit > Preferences > List Columns*.

Figure 1.10 *File Manager List Columns Dialog Box*

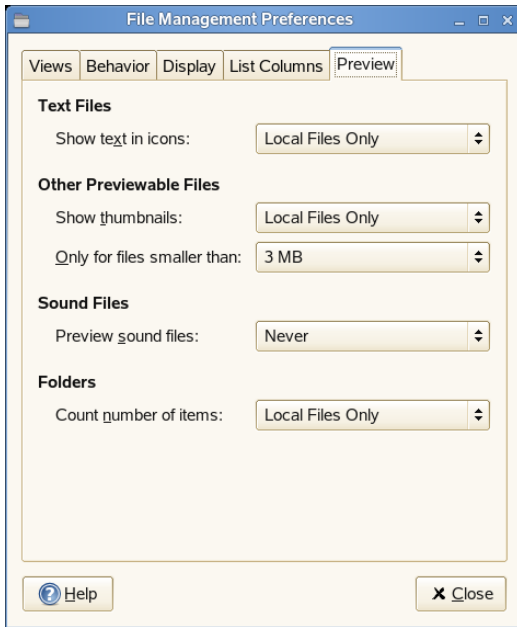


Select the columns that you want to appear. To change the order, click *Move Up* or *Move Down*.

Preview

To configure how file previews appear in the file manager and whether or not folders show the number of items they contain, click *Edit > Preferences > Preview*:

Figure 1.11 *File Manager Preview Dialog Box*



Select from the following options:

Table 1.8 *File Manager Preview Options*

Option	Description
<i>Show text in icons</i>	Specifies when to preview the content of text files in the icons that represent the files.
<i>Show thumbnails</i>	Specifies when to show thumbnails of image files in the icons that represent the files.
<i>Only for files smaller than</i>	Specifies the maximum file size for files represented by thumbnails.
<i>Preview sound files</i>	Specifies when to preview sound files.

Option	Description
<i>Count number of items</i>	Specifies when to show the number of files contained in folders. In the <i>Icon</i> view, you might need to increase your zoom level to see the number.

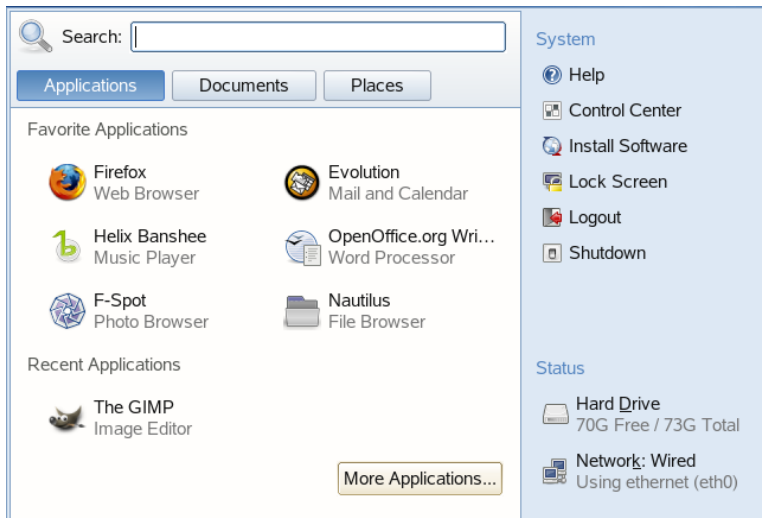
1.6 Accessing Network Resources

This section helps you access network resources using the following tasks:

1.6.1 Connecting to Your Network

You can connect to a network with wired and wireless connections. To view your network connection status, click *Computer*. In the *Status* area of the main menu, the *Network Connections* icon shows your network connection status. For example, in the following figure, the computer is connected to a wired network using an Ethernet connection.

Figure 1.12 *Network Connections Icon in the Main Menu*



Click the icon to get information about your connection, such as the IP address, gateway address, and similar details. Click *Configure Networking* in the *Connection Information* dialog box if you need to configure your network setup method or edit your network card configuration.

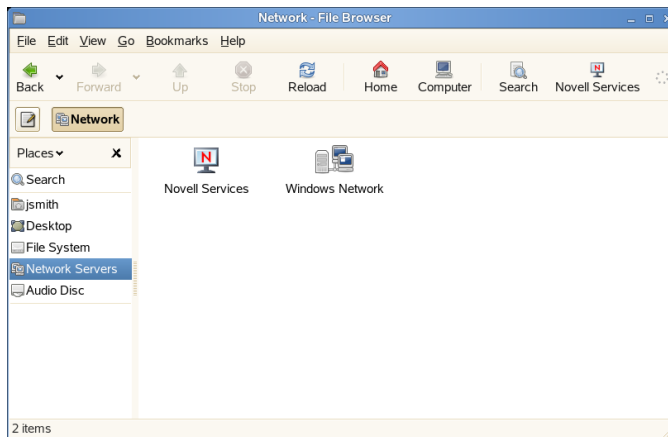
For information, see [Chapter 11, *Managing Network Connections*](#) (page 209).

1.6.2 Accessing Network Shares

Other network devices, like workstations and servers, can be set up to share some or all of their resources. Typically, files and folders are marked to let remote users access them. These are called *network shares*. If your system is configured to access network shares, you can use Nautilus file manager to access them.

To access network shares, double-click your *Home* directory icon on the desktop, then click *Network Servers* in the left pane. The window displays the network shares that you can access. Double-click the network resource that you want to access. You might be required to authenticate to the resource by providing a username and password.

Figure 1.13 *Network File Browser*



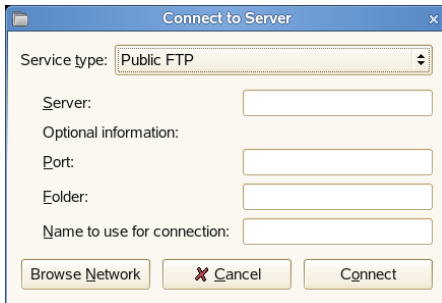
To access Novell shares, double-click the *Novell Services* icon. A list of Novell shares available to you is displayed.

To access NFS shares, double-click the *UNIX Network* icon. A list of UNIX shares available to you is displayed.

To access Windows shares, double-click the *Windows Network* icon. The Windows shares available to you are displayed.

Adding a Network Place

- 1 Click *Computer > Nautilus File Browser > File > Connect to Server*.



- 2 Select a service type, then specify the required information for your type of service.
- 3 Specify the name you want displayed for this connection, then click *Connect*.

An icon for the network place is added to the desktop.

1.6.3 Sharing Directories from Your Computer

You can make directories on your computer available to other users on your network.

Enabling Sharing

Use YaST to enable sharing on your computer. In order to enable sharing, you must have root privileges and be a member of a workgroup or domain.

- 1 Click *Computer > More Applications > System > YaST*.

- 2 In YaST, click *Network Services > Windows Domain Membership*.
- 3 In the *Windows Domain Membership* module, click *Allow Users To Share Their Directories*.
- 4 Click *Finish*.

Sharing a Directory

If directory sharing is enabled on your computer, use the following steps to configure a directory to be shared.

- 1 Open the file manager and browse to the directory you want to share.
- 2 Right-click the directory you want to share, then click *Sharing Options*.



- 3 Select the *Share this folder* check box, then type the name you want to use for this share.
- 4 If you want other users to be able to copy files to your shared directory, select the *Allow other people to write in this folder* check box.
- 5 (Optional) Type a comment, if desired.
- 6 Click *Create Share*.

1.7 Accessing Floppy Disks, CDs, or DVDs

To access floppy disks, CDs, or DVDs, insert the medium into the appropriate drive. 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

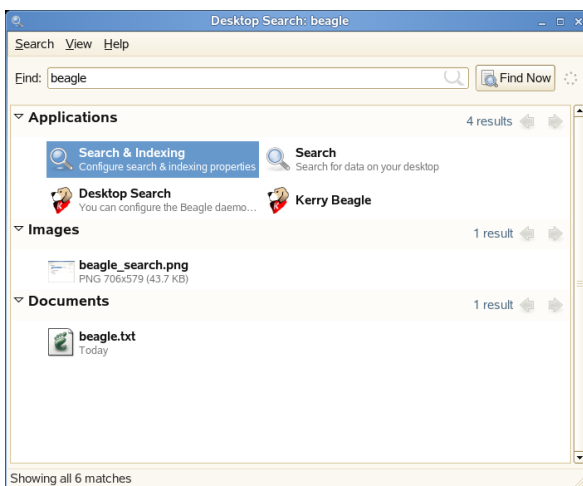
Do not simply remove disks from the drive after using them. Floppy disks, CDs, and DVDs must always be unmounted from the system first. Close all File Manager sessions still accessing the medium, then right-click the icon for the medium and select *Eject* from the menu. Then safely remove the floppy disk or CD when the tray automatically opens.

Floppy disks can also be formatted by clicking *Computer > More Applications > System > Floppy Formatter*. In the *Floppy Formatter* dialog, select the density of the floppy disk and the file system settings: Linux native (ext2), the file system for Linux, or DOS (FAT) to use the floppy with Windows systems.

1.8 Finding Data on Your Computer or in the File System

GNOME provides several ways to finding data on your computer or in the file system. With Beagle (also called Desktop Search), you can easily search your personal information space (usually your home folder) to find documents, e-mails, Web history, IM/ITC conversations, source code, images, music files, applications, and much more.

To locate files on your computer, click *Computer*, enter your search terms in the *Search* field, then press Enter. The results are displayed in the Desktop Search dialog box.



You can use the results lists to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you want. The options available for an item depend on the type of file it is. Clicking a file in the list displays a preview of the file and information such as the title, path, and when the file was last modified or accessed.

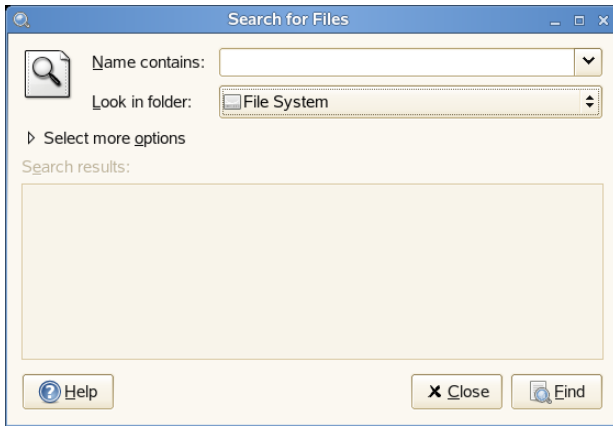
For more information, see [Chapter 9, *Searching with Beagle*](#) (page 195).

With *Search for Files*, you can locate files on your computer or in the file system using a variety of search criteria, such as file content, dates, owner, or file size. Start it by clicking *Computer > More Applications > System > Search for Files*.

1.8.1 Searching for Files

Using *Search for File* on the *System* menu, you can locate files on your computer or on a network share using any number of search criteria.

Figure 1.14 *Search for Files Dialog*



Search for Files uses the `find`, `grep`, and `locate` UNIX commands, and all searches are case insensitive.

You can also open the *Search for Files* dialog by entering the following command in a terminal window:

```
gnome-search-tool
```

Performing a Basic Search

- 1 Click *Computer > More Applications > System > Search for Files*.
- 2 Type the search text in the *Name contains* field.

The search text can be a filename or partial filename, with or without wildcards, as shown in the following table:

Search Text	Example	Result
Full or partial filename	<code>myfile.txt</code>	Searches for all files that contain “myfile.txt” in the filename.

Search Text	Example	Result
Partial filename combined with wildcards (* [])	*. [ch]	Searches for all files that have a .c or .h extension.

3 In the *Look in folder* field, type the path to the directory where you want *Search for Files* to begin the search.

4 Click *Find*.

Search for Files searches in the directory that you specify (and any subdirectories of the directory) and displays the results of the search in the *Search Results* list. If *Search for Files* does not find any files that match the search criteria, the application displays the message `No files found` in the *Search* results list.

Adding Search Options

Use *Show more options* to search by file content, dates, owner, or file size.

1 Click *Computer > More Applications > System > Search for Files*.

2 Type the search text in the *Name contains* field.

3 In the *Look in folder* field, type the path to the directory where you want *Search for Files* to begin the search.

4 Click *Select more options*, then click *Available options*

5 Select a search option that you want to apply, then click *Add*.

The following options are available:

Option	Description
<i>Contains the text</i>	Searches for a file by filename. Type a full filename or a partial filename with wildcards in the field provided. Use an asterisk (*) to indicate a sequence of

Option	Description
	characters. Use a question mark (?) to indicate a single character. The search is case sensitive.
<i>Date modified less than</i>	Searches for files that were modified within the period specified (in days).
<i>Date modified more than</i>	Searches for files that were modified before the period specified (in days).
<i>Size at least</i>	Searches for files that are equal to or larger than the size specified (in kilobytes).
<i>Size at most</i>	Searches for files that are smaller than or equal to the size specified (in kilobytes).
<i>File is empty</i>	Searches for empty files.
<i>Owned by user</i>	Searches for files that are owned by the user specified. Type the name of the user in the text box provided.
<i>Owned by group</i>	Searches for files that are owned by the group specified. Type the name of the group in the text box provided.
<i>Owner is unrecognized</i>	Searches for files that are owned by a user or group that is unknown to the system.
<i>Name does not contain</i>	Searches for filenames that do <i>not</i> contain the string that you enter. Enter a full filename or a partial filename with wildcards in the field provided. Use an asterisk (*) to indicate a sequence of characters. Use a question mark (?) to indicate a single character. The search is case sensitive.
<i>Name matches regular expression</i>	Searches for files that contain the specified regular expression in their directory path or filename. Type the regular expression in the text box provided.

Option	Description
	Regular expressions are special text strings used to describe a search pattern. For more information, see http://www.regular-expressions.info .
<i>Show hidden and backup files</i>	Includes hidden and backup files in the search.
<i>Follow symbolic links</i>	Follows symbolic links when searching for files.
<i>Include other filesystems</i>	Searches in directories that are not in the same file system as the start directory.

6 Specify the required search information for the search option.

7 Repeat **Step 5** (page 36) and **Step 6** (page 38) for each search option you want to apply.

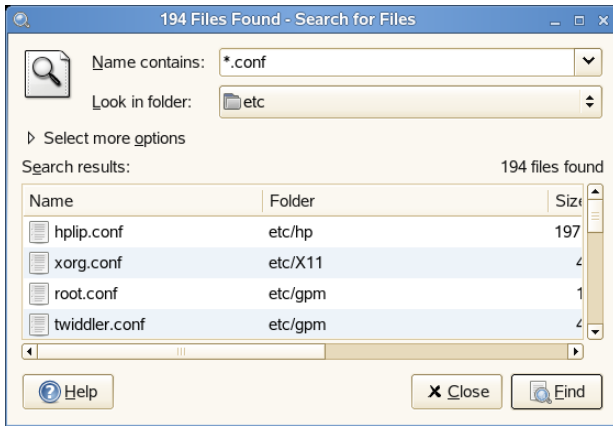
To remove a search option from the current search, click the *Remove* button next to the option.

8 Click *Find*.

Using the Search Results List

You can use the *Search Results* list to open or delete a file found during a search, or you can save the search results to a file.

Figure 1.15 *Search Results List*



To open a file displayed in the *Search Results* list, right-click the file and then click *Open* or double-click the file. To open the folder that contains a file displayed in the *Search Results* list, right-click the file and then click *Open Folder*.

To delete a file displayed in the *Search Results* list, right-click the file and then click *Move to Trash*.

To save the results of the last search that *Search for Files* performed, right-click anywhere in the Search results list and then click *Save Results As*. Type a name for the file the results are saved to, then click *Save*.

Disabling Quick Searches

By default, *Search for Files* tries to speed up some searches by using the `locate` command. `locate` provides a secure way to index and quickly search for files. Because `locate` relies on a file index, the Search Results list might not be up to date. To disable quick searches, run the following command in a terminal window:

```
# gconftool-2 --type=bool --set  
/apps/gnome-search-tool/disable_quick_search 1
```

1.9 Moving Text between Applications

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

1.10 Exploring the Internet

The GNOME Desktop includes Firefox, a Mozilla* based Web browser. You can start it by clicking *Computer > Firefox*.

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

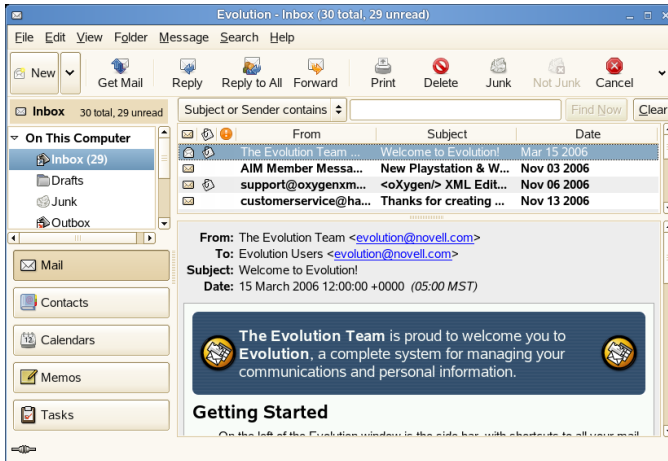
For more information, see [Chapter 12, *Browsing with Firefox*](#) (page 219).

1.11 E-mail and Scheduling

For reading and managing your mail and events, SUSE Linux Enterprise Desktop offers you Novell Evolution™, a groupware program that makes it easy to store, organize, and retrieve your personal information, and the GroupWise® Client, a cross-platform, corporate e-mail system that provides secure messaging, calendaring, scheduling, and instant messaging.

1.11.1 Evolution

Evolution seamlessly combines e-mail, a calendar, an address book, and a 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 *Computer > More Applications > Office > Evolution Mail and Calendar*.

The first time you start it, Evolution 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, as well as the current weather and news from news feeds. The calendar, address book, and mail tools are available in the shortcut bar on the left.

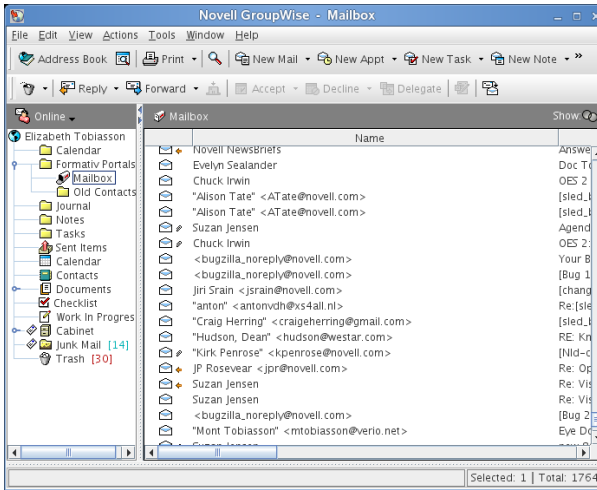
Press **Ctrl + N** open a new item for whatever part of Evolution you are working in. In mail, this creates a new message. If you are in the address book, **Ctrl + N** creates a new contact card, and in the calendar, **Ctrl + N** creates a new appointment.

For more information, see [Chapter 4, Evolution: E-Mail and Calendaring](#) (page 139).

1.11.2 GroupWise

GroupWise is a robust, dependable messaging and collaboration system that connects you to your universal mailbox anytime and anywhere. SUSE Linux Enterprise Desktop includes the GroupWise 7.0.2 Cross-Platform Client for Linux.

GroupWise is not installed by default. Use the Software Management feature in YaST to install the `novell-groupwise-gwclient` package. Then click *Computer > More Applications > Communicate > GroupWise* to open the GroupWise Client.



Your main work area in GroupWise is called the *Main Window*. From the *Main Window* of GroupWise, you can read your messages, schedule appointments, view your Calendar, manage contacts, change the mode of GroupWise you are running in, open folders, open documents, and much more.

For more information on using GroupWise, click *Help > User Guide* in the GroupWise Client.

1.12 Opening or Creating Documents with OpenOffice.org

For creating and editing documents, OpenOffice.org is installed with the GNOME desktop. OpenOffice.org is a complete set of office tools that can both read and save Microsoft Office file formats. OpenOffice.org has a word processor, a spreadsheet, a data base, a drawing tool, and a presentation program. To get started, click *Computer > OpenOffice.org Writer* or select an OpenOffice.org module by clicking *Computer > More Applications > Office*, then select the module you want to open.

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

For a more detailed introduction to OpenOffice.org, see [Chapter 3, The OpenOffice.org Office Suite](#) (page 105) or view the help in any OpenOffice.org program.

1.13 Taking Screen Shots

You can take a snapshot of your screen or an individual application window using any of the following methods:

From any panel

You can add the *Take Screenshot* button to any panel. For information on how to do this, see [Section 1.3.4, “Adding Applets and Applications to the Panel”](#) (page 10). After you have added the button, click the *Take Screenshot* button to take a snapshot of the entire desktop.

Use shortcut keys

Press the Print Screen button to take a screen shot of the entire desktop. Press Alt + Print Screen to take a screen shot of the currently active window or dialog box.

From the Application Browser

Click *Computer > More Applications > System > Take Screenshot*.

From a terminal

You can use the `gnome-panel-screenshot` command to take a screen shot. This command takes a screen shot of the entire screen, and displays the *Save Screenshot* dialog box, which you can use to save the screen shot.

You can use the following options with the `gnome-panel-screenshot` command:

--window:

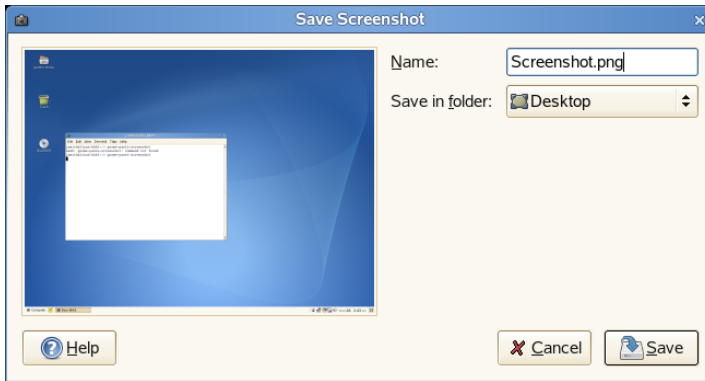
Takes a screen shot of the currently active window.

--delay=seconds:

Takes a screen shot after the specified number of seconds, and displays the *Save Screenshot* dialog box.

When you take a screen shot, the *Save Screenshot* dialog box opens. To save the screen shot as an image file, enter the filename for the screen shot and choose a location from the drop-down list.

Figure 1.16 *Save Screenshot Dialog Box*

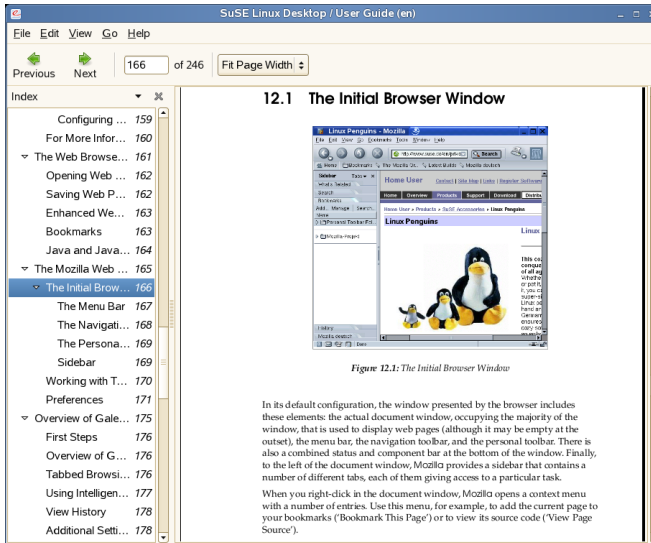


You can also use The GIMP to take screen shots. In The GIMP, click *File > Acquire > Screen Shot*, select a *Single Window* or *the Whole Screen*, then click *Grab*.

1.14 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 Desktop ships with several PDF viewers, such as Evince and Adobe* Acrobat* Reader.

- 1 Click *Computer > More Applications > Office*.
- 2 Select *Acrobat Reader* or *Evince*.
- 3 To view a PDF file, click *File > Open*, locate the desired PDF file, then click *Open*.



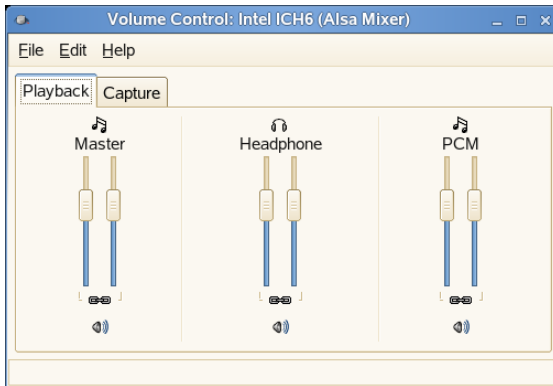
- 4 Use the navigation icons at the top of the window to navigate through the document. If your PDF document provides bookmarks, you can access them in the left panel of the viewer.

1.15 Controlling Sound

YaST automatically identifies and configures the sound cards in your computer. You can also use the YaST Hardware module to configure your sound card manually. When your sound card has been configured, you can control the volume and balance of the sound with the GNOME Volume Control mixer.

If the mixer icon (a loudspeaker symbol) is not visible in the panel on your desktop, press **Alt + F2** and enter `gnome-volume-control`, or click *Computer > More Applications > Audio & Video > Volume Control*.

Figure 1.17 *GNOME Volume Control Dialog Box*



The GNOME Volume Control dialog box contains the following elements:

Menubar

The items on the menubar contain all of the commands that you need to work with the GNOME Volume Control.

Display area

The display area contains the channel faders and associated options for several mixers, which enable you to control the volume on those mixers.

NOTE

GNOME Volume Control populates the display area dynamically, based on the functionality supported by your sound card. The mixers displayed in your GNOME Volume Control window might be different to those shown in [Figure 1.17, “GNOME Volume Control Dialog Box”](#) (page 46).

To increase the volume, slide the fader up. To decrease the volume, slide the fader down. To lock the left and right mixer channels together, select the *Lock* option for that mixer. When you lock the mixer channels, GNOME Volume Control synchronizes both faders. To silence a mixer, select the *Mute* option for that mixer. When you adjust the fader of a muted channel, GNOME Volume Control deselects the *Mute* option for that mixer.

Any mixer that has a *Rec* option can be a recording source. To specify the current recording source, select the *Rec* option for that mixer.

1.16 Managing Software Packages and Updates

The ZENworks® tools serve as graphical front-ends for the ZENworks Management Daemon (zmd), allowing you to easily install or remove software, apply security updates, and manage services and catalogs.

1.16.1 Getting Permissions

Managing packages on a Linux system requires `root` privileges. Software Updater and `rug` (a new command line tool for installing and updating packages) have their own user management system that allows users to install software updates. When a user first invokes an action that requires special privileges in the ZEN tools, a prompt for the `root` password appears. When the password has been verified, Software Updater automatically adds the user's account to the user management system with update permissions. To review or change these settings, use the `rug` user management commands.

For more information, see `rug` User Management [http://www.novell.com/documentation/sled10/sled_deployment/data/sec_yast_ncurses_you2.html] in the *SUSE Linux Enterprise Desktop Deployment Guide*.

1.16.2 Obtaining and Installing Software Updates

Software Updater resides in the notification area of your panel as an icon depicting a globe, which changes color and appearance depending on the availability of a network link and new updates. Once a day, Software Updater automatically checks whether updates for your system are available (right-click the application icon and select *Refresh* to force an immediate check). The Software Updater applet in the panel changes from a globe to an exclamation mark on an orange background when new updates are available.

Left-click the panel icon to open the updater window. A list of patches and new package versions are displayed (if available). Each entry has a short description and, if applicable, a category icon: Security patches are marked with a yellow shield. Optional patches

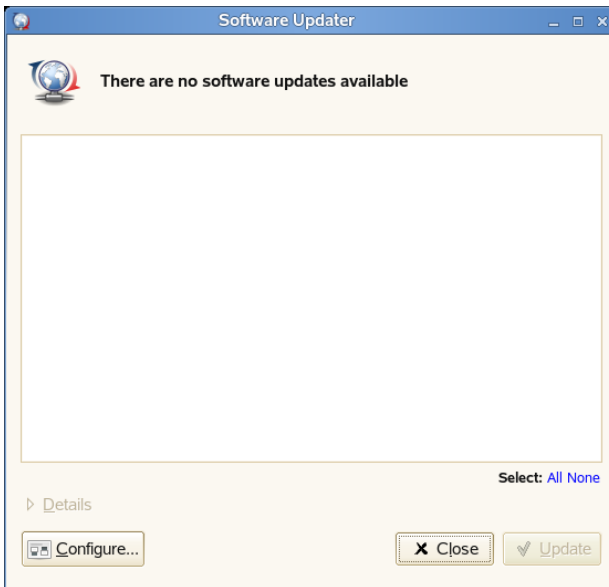
are marked with a light blue circle. Recommended patches are not marked with an icon. Security patches are listed first, then recommended patches, optional patches, and new package versions. Use the *All*, *Packages*, and *Patches* links to filter the list of displayed packages.

NOTE

Officially released updates from Novell show up as Patches. New package versions from other sources show up as Packages.

To get details about a certain entry, select the entry and click the *Details* link under the list window. To select an entry for installation, select the entry's check box. Use the *All* and *None* links to select or deselect all patches. Click *Update* to install the selected programs.

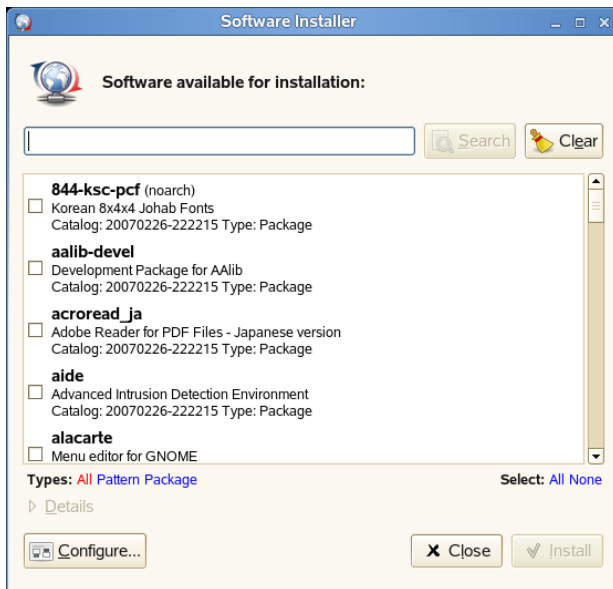
Figure 1.18 *Software Updater*



1.16.3 Installing Software

To install software packages, click *Computer > Install Software* or enter `zen-installer` in a terminal. The interface is almost identical to the Software Updater; the only difference is a search panel you can use to search for single packages or to filter the list.

Figure 1.19 *Software Installer*

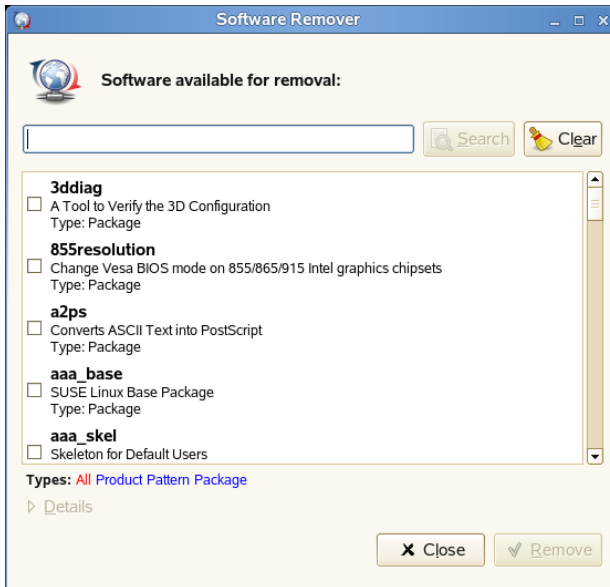


Select the packages that you want to install, then click *Install* to start the package installation. Possible dependencies on other packages are automatically resolved by the installer.

1.16.4 Removing Software

To remove software packages, click *Computer > More Applications > System > Remove Software* or enter `zen-remover` in a terminal.

Figure 1.20 *Software Remover*



Use the *Products*, *Patterns*, *Packages*, and *Patches* links to narrow the list of packages. Select the packages you want to remove, then click *Remove* to start the package uninstallation. If other packages depend on the packages you selected, those packages will be removed as well. You must confirm the removal of additional packages. If you click *Cancel* in the confirmation dialog, no packages are uninstalled.

1.16.5 Configuring the Software Updater

To configure the ZENworks tools, click *Configure* in the Software Updater window. A dialog box with three tabs opens:

- Services
- Catalogs
- Preferences

Services

Services are basically sources that provide software packages and information about these packages. Each service can offer one or more catalogs.

The Service tab lists all services available together with type and status information (if you cannot see the latter two, adjust the window size). Use *Remove Service* or *Add Service* to add or remove services. The following service types are available:

YUM

An HTTP, HTTPS, or FTP server using the RPM-MD format for the package data.

ZYPP

ZYPP services are the YaST installation sources added with *Software > Installation Source* in YaST. Use the Software Updater or YaST to add installation sources. The source you initially installed from (DVD or CD-ROM in most cases) is preconfigured. If you change or delete this source, replace it with another valid installation source (ZYPP service), or you will not be able to install new software.

NOTE

The terms *YaST installation source*, *YaST package repository*, and *ZYPP service* are the same name for a source from which you can install software.

Mount

With *Mount*, you embed a directory mounted on your machine. This is useful if, for example, you are in a network that regularly mirrors the Novell YUM server and exports its content to the local network. To add the directory, provide the full path to the directory in *Service URI*.

NU

NU stands for Novell Update. Novell provides updates for SUSE Linux Enterprise exclusively as NU service. If you configured update during installation, the official Novell NU server is already present in the list.

If you skipped the update configuration during installation, run the `suse_register` command in a terminal or click *Software > Product Registration* in YaST as `root`. The Novell Update server is automatically added to the Software Updater.

RCE and ZENworks

Opencarpet, Red Carpet Enterprise, or ZENworks services are only available if your company or organization has set up these services within your internal network. This might, for example, be the case if your organization is using third-party software for which updates are deployed on a single server.

After SUSE Linux Enterprise Desktop is installed, two services are preconfigured: your installation source (DVD, CD-ROM, or network resource) as a ZYPP service, and a SUSE Linux Enterprise update server as a service, which is added during product registration. Normally, there is no need to change these settings. If you do not see a service, open a terminal and execute the `suse_register` command as `root`. A service is added automatically.

Catalogs

Services are able to provide packages for different pieces of software or for different software versions (typically RCE or ZENworks services do so). These are organized in different categories called catalogs. Subscribe or unsubscribe from a catalog by marking or unmarking the check box in front of it.

At the moment, the SUSE Linux services (YUM and ZYPP) do not provide different catalogs. Each service only has one catalog. If the Software Updater was configured during installation or with `suse_register`, it subscribes to the YUM and ZYPP catalogs automatically. If you manually add a service, you must subscribe to its catalogs.

WARNING

To install packages from a catalog, you must be subscribed to this catalog. If you unsubscribe, the packages from this catalog are still listed in the update window, but you cannot install them.

Preferences

On the Preferences tab, specify whether Software Updater should be launched at startup or not. As the `root` user, you can also modify the Software Updater settings. As a nonprivileged user, you can only view the settings. See the `rug` man page for an explanation of the settings.

1.17 Other Useful Programs

In addition to the programs already discussed, like applets you can add to a panel, the system also includes additional programs, organized in categories in the application browser. To access the programs, open the application browser by clicking *Computer* > *More Applications*, then browse through the categories to see which applications are available. Categories include the following:

Table 1.9 *Applications*

Category	Types of Programs
Applications	Applications for browsing files and other uses
Audio & Video	Music players, CD database, video editors, CD and DVD burners, volume controllers, and other audio and video applications
Browse	Applications for browsing the Internet and your computer's file system
Communicate	E-mail, instant messaging, video conferencing, and other communication tools
Games	Card games, arcade favorites, and puzzles
Images	Image viewers and editors, drawing programs, photo browsers, scanning programs
Office	Word processors and text editors, spreadsheets, presentation software, database software, project management utilities, PDF reader, personal information managers, calendars
System	Applications for configuring and managing your system
Tools	System customization, search configuration, calculators, and other tools

Category	Types of Programs
Other	New applications you have added to your system, and the SUSE Help Center

The following chapters in this guide describe some of the more commonly used applications.

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 2.2.1, “Modifying Keyboard Preferences”](#) (page 58) and [Section 2.2.2, “Configuring the Mouse”](#) (page 59)
- Desktop background, as described in [Section 2.3.1, “Changing the Desktop Background”](#) (page 62)
- Screen saver, as described in [Section 2.3.5, “Configuring the Screen Saver”](#) (page 78)
- Password, as described in [Section 2.4.3, “Changing Your Password”](#) (page 88)
- Sounds, as described in [Section 2.5.9, “Setting Sound Preferences”](#) (page 101)

These settings and others can be changed in the Control Center.

2.1 The Control Center

To access the Control Center, click *Computer > Control Center*. The Control Center is divided into the following four categories:

Hardware

Allows you to configure hardware components such as graphics cards, monitors, printers, or keyboard layout, and to set up your network devices and configure your network connection. For more information, see [Section 2.2, “Configuring Hardware Settings”](#) (page 58).

Look and Feel

Holds settings for the desktop background, the screen saver, and the fonts appearing on the desktop. You can modify themes, window behavior, and styles of desktop elements, such as menus, and scroll bars. Here, you can also configure 3D desktop effects (Xgl). For more information, see [Section 2.3, “Look and Feel”](#) (page 62).

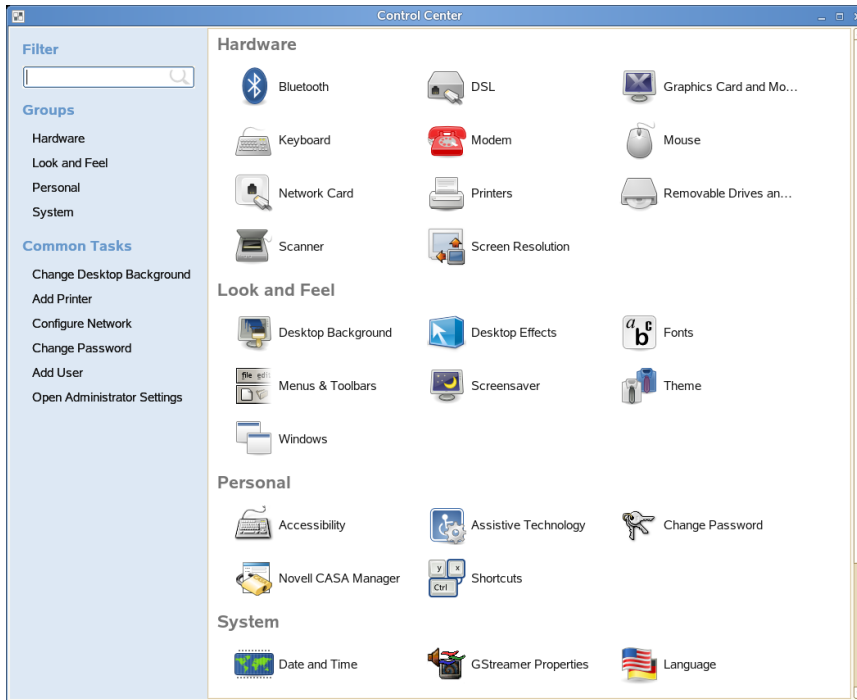
Personal

Go here to change your login password, or to configure keyboard shortcuts or keyboard accessibility settings. For more information, see [Section 2.4, “Personal”](#) (page 83).

System

Lets you configure system settings such as date and time, language, sound, or power management,. Define how GNOME handles sessions on login or shutdown, and modify the Beagle search settings. For more information, see [Section 2.5, “System”](#) (page 92).

Figure 2.1 *GNOME Control Center*



In order to change some systemwide settings, 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. Refer to the integrated YaST help texts or refer to *System Configuration with YaST* in the SUSE Linux Enterprise Desktop *Deployment Guide* for more information.

NOTE: YaST Gtk and Qt Front-Ends

YaST comes with two front-ends depending on the desktop installed on your system. By default, the YaST gtk front-end runs on the GNOME desktop, and the YaST qt front-end on the other desktops. This is defined with the `WANT_UI` parameter in `/sbin/yast2`.

Feature-wise, the gtk front-end is very similar to the qt front-end described in the manuals. One exception is the gtk software management module, which differs considerably from the qt port.

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

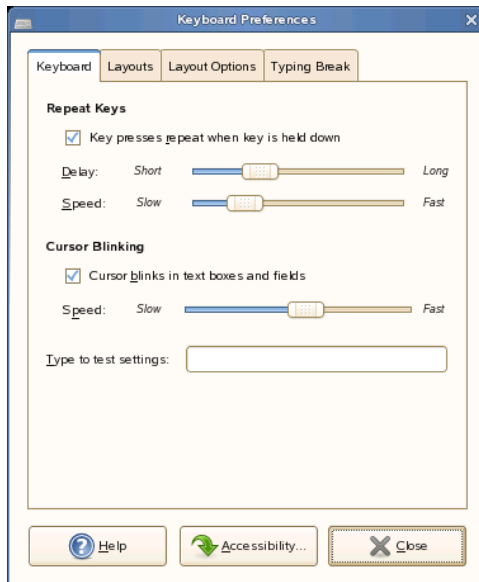
2.2 Configuring Hardware Settings

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

2.2.1 Modifying Keyboard Preferences

To modify some keyboard settings such as autorepeat preferences or typing break sessions, click *Computer > Control Center > Hardware > Keyboard*.

Figure 2.2 *Keyboard Preferences Dialog*



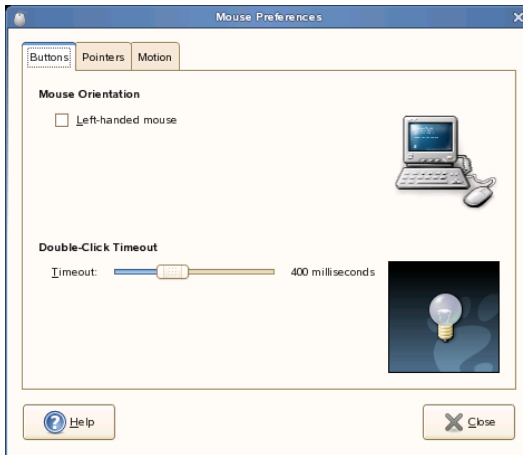
- 1 On the *Keyboard* tab, you can set some general keyboard preferences, such as enabling keyboard repeat with individual delay and speed options, or enabling or disabling the blinking of the cursor and defining the speed. For more information about the individual options, click *Help*.
- 2 To select your keyboard model, click the *Layouts* tab, click the *Browse* button and select your model from the list.
- 3 To add a new language layout, click *Add* and choose a language layout to add to the list. You can select different layouts to suit different locales. Select one layout as *Default*.
- 4 On the *Typing Break* tab, you can set typing break preferences. For more information about the individual options, click *Help*.
- 5 If all options are set according to your wishes, click *Close*.

The *Accessibility* button opens the *Keyboard Accessibility Preference* tool. For more information on this tool, refer to [Section 2.4.1, “Configuring Keyboard Accessibility Settings”](#) (page 84).

2.2.2 Configuring the Mouse

To modify some mouse options, click *Computer > Control Panel > Hardware > Mouse* to open the *Mouse Preferences*.

Figure 2.3 *Mouse Preferences Dialog*

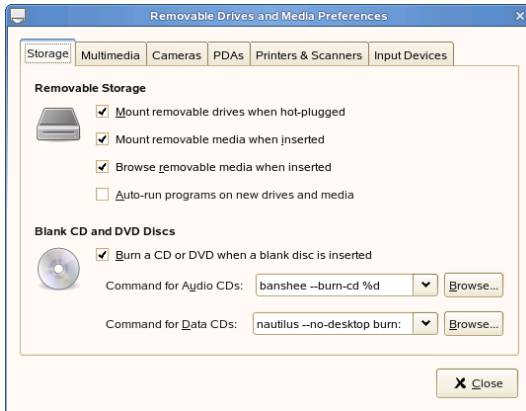


- 1 Use the *Buttons* tab to specify whether the mouse buttons are configured for left-hand use. You can also specify the delay between clicks for a double-click.
- 2 To select a different cursor theme, switch to the *Cursors* tab. There, you can also enable a mouse pointer animation when you press and release Ctrl. This feature can help you locate the mouse pointer.
- 3 On the *Motion* tab, define the *Acceleration* and *Sensitivity* of your mouse pointer. You can also modify the distance that you must move an item with the pointer before the action is interpreted as a drag and drop action.
- 4 If all options are set according to your wishes, click *Close*.

2.2.3 Configuring Removable Drives and Media

You can use a wide variety of removable drives and media, including storage devices, cameras, scanners, and more. The configurations for many of these devices are set up automatically during installation. To change the configuration for a drive or other removable device, click *Computer > Control Center > Hardware > Removable Drives and Media*.

Figure 2.4 *Removable Drives and Media Preferences*



Some of the possible configuration settings include:

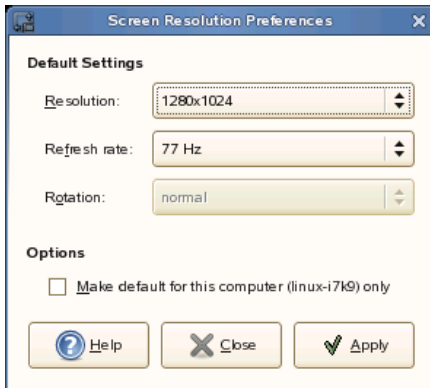
- What happens when a blank CD is inserted in the CD drive
- What happens when an audio CD is inserted in the drive
- Whether images are automatically imported from a digital camera when it is attached to the computer
- Whether removable storage devices are mounted when they are plugged in to the computer
- Whether PDAs are automatically synced when attached to the computer

In general, you do not need to change the settings that are already configured unless you want to change the behavior when a device is connected or if you want to connect a new device that is not yet configured. If you attach a device for the first time and it behaves in an unexpected or undesired way, check the *Removable Drives and Media* settings.

2.2.4 Specifying Screen Resolution Settings

To specify the resolution and refresh rate for your screen, click *Computer > Control Center > Hardware > Screen Resolution* and modify the options.

Figure 2.5 *Screen Resolution Preferences Dialog*



2.3 Look and Feel

In the following sections, find examples of how to configure some look and feel aspects of your GNOME desktop, like desktop background and screens saver, 3D desktop effects, themes, window behavior, or menus.

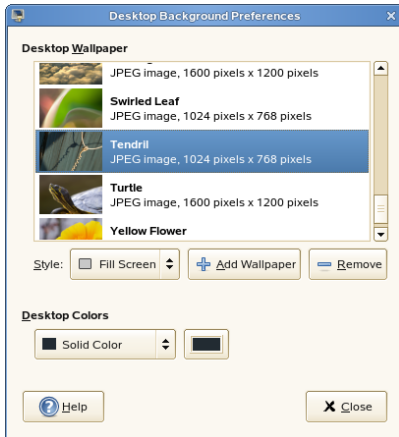
2.3.1 Changing the Desktop Background

The desktop background is the image or color that is applied to your desktop. You can customize the desktop background in the following ways:

- Select an image for the desktop background. The image is superimposed on the desktop background color. The desktop background color is visible if you select a transparent image or if the image does not cover the entire desktop.
- Select a color for the desktop background. You can select a solid color or create a gradient effect with two colors. A gradient effect is a visual effect where one color blends gradually into another color.

To change the desktop preferences:

- 1 Click *Computer > Control Center > Look and Feel > Desktop Background*.



- 2 To change the picture on the background, select one of the *Desktop Wallpapers* from the list and select the style in which to arrange the image on the desktop.
- 3 To use a custom picture, click *Add Wallpaper* and select an image file from the file system.
- 4 If you do not want a picture on the background, specify a color scheme using the options in the *Desktop Color* drop-down list and the color selector buttons.
- 5 When you are satisfied with your choices, click *Close*.

Your desktop immediately changes to show the new settings.

2.3.2 Configuring Desktop Effects

Xgl is an X server architecture that lets you turn your desktop into a rotating 3-D cube, tile windows so they do not overlap, and switch tasks while viewing live thumbnails. You can enable translucent or transparent windows, zoom in and out of the desktop screen, and use other window effects such as shadows, fading, and transformations. You can also configure windows to snap to other windows and screen edges when they are moved.

Figure 2.6 3-D Desktop



Enabling Desktop Effects

To enable Xgl, you need a graphics adapter capable of providing 3-D support, and you also need the graphics driver that Linux uses to operate the graphics adapter. This driver must be able to handle OpenGL (or 3-D) requests from the Linux kernel. For a list of supported adapters, see the `/etc/X11/xgl-hardware-list` file that is included with the SUSE Linux Enterprise Desktop installation. This file tells you which graphics cards are known to work with Xgl, which cards do not work with Xgl, and which cards might work with Xgl but are not supported because they are either too slow or contain too many known defects.

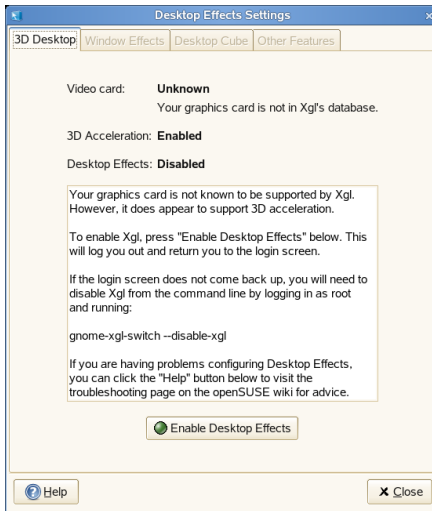
Your screen resolution must be within the 1024x768 to 1920x2000 range, and your color depth must be set at 24-bit. 3-D acceleration must also be enabled. Use `SaX2` to change your graphic card and monitor properties if necessary.

To enable desktop effects:

- 1 Click *Computer > Control Center*.

- 2 Click *Desktop Effects* in the *Look and Feel* group.

The Desktop Effects tool analyzes your system and tries to determine whether or not you can run Xgl. If it finds anything wrong, it advises you on what actions you can take. For example, you might be advised to change your screen resolution or color depth, or to activate 3-D acceleration. Follow the on-screen prompts to configure your system for Xgl.



- 3 After your system is configured for Xgl, click *Enable Desktop Effects*.
- 4 Type the `root` password, then click *Continue*.
- 5 Click *Log Out* to log out of your session, then type your username and password to log back in.

The default desktop effects are now enabled. For example, windows “wobble” when they first appear and when you move them, they fade away when you close them, and dragging a window to the far right of the screen rotates the desktop cube. To change any of these effects, see [Section “Modifying Desktop Effects”](#) (page 66).

You can also enable Xgl by running the following command as `root`:

```
gnome-xgl-switch --enable-xgl
```

To disable Xgl, click *Disable Desktop Effects* in the *Desktop Effects Settings* dialog box, or run the following command as `root`:

```
gnome-xgl-switch --disable-xgl
```

Modifying Desktop Effects

Use the *Desktop Effects Settings* tool to enable or disable specific desktop effects, or to change the keystrokes or mouse actions used to control those effects.

- 1 Click *Computer > Control Center*.
- 2 Click *Desktop Effects* in the *Look and Feel* group.
- 3 Choose from the following options:
 - [Section “Window Effects”](#) (page 67)
 - [Section “Desktop Cube”](#) (page 68)
 - [Section “Other Features”](#) (page 70)
- 4 When you finish making changes, click *Close*.

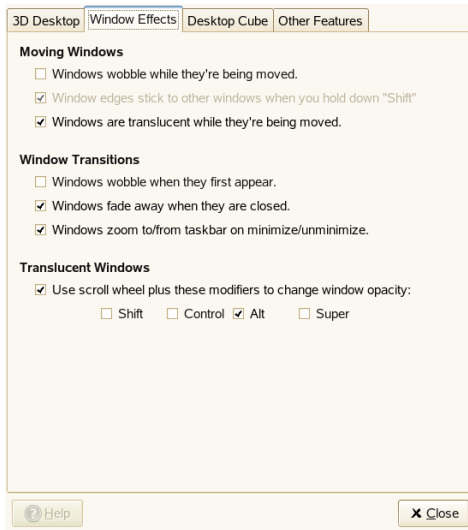
You can also use `gconf-editor` to change Xgl settings.

- 1 Click *Computer > More Applications > System > GNOME Configuration Editor* or press `Alt + F2` and enter `gconf-editor`.
- 2 Navigate to the `apps/compiz/general` and `apps/compiz/plugins` registry folders and make the changes you want.
- 3 Click *File > Quit* to close the *Configuration Editor*.

Window Effects

Use the options on this tabbed page to specify what happens when you move windows, how window transitions appear, and to change window opacity.

Figure 2.7 *Window Effects Tabbed Page*



Moving Windows

By default, windows appear transparent when you move them. If you want window edges to stick (snap) to other windows and workspace edges when you hold down the Shift key while moving the window, both the *Windows wobble while they're being moved* and *Window edges stick to other windows when you hold down "Shift"* options must be selected.

You can also choose to make windows appear distorted (wobbly) as you move or resize them, giving the impression that the window is more fluid than rigid.

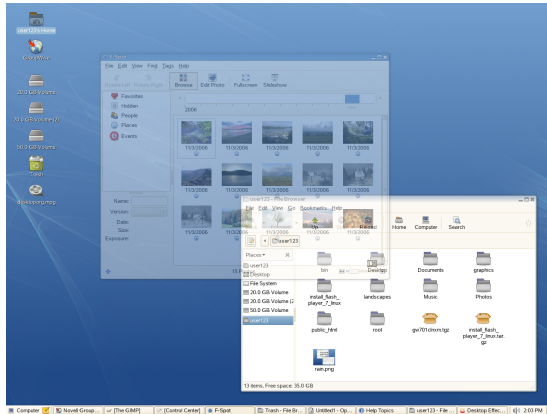
Window Transitions

These options let you add a fade-in and fade-out effect to windows and menus when you open and close them. Windows will also shrink smoothly onto the task bar when they are minimized and will grow smoothly back to their normal size when they are reopened.

Translucent Windows

This option lets you use the scroll wheel to change how transparent a window appears on-screen. Select *Use scroll wheel plus these modifiers to change window opacity*, then select the button or combination of buttons you want to use. Select a window, hold down the button or buttons you selected, then scroll the mouse wheel up or down to change the transparency of the window.

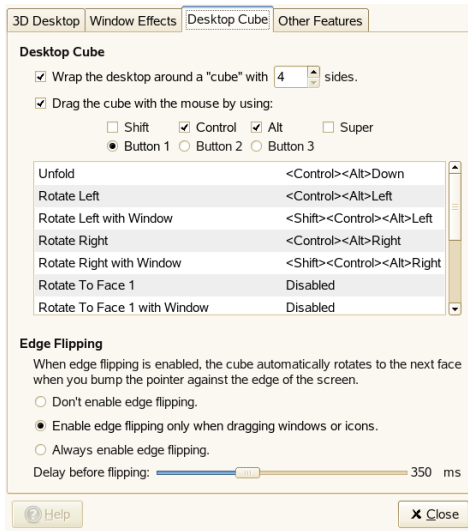
Figure 2.8 *Translucent Window*



Desktop Cube

Use the options on this tabbed page to specify how many sides your desktop cube has, which keystroke and mouse button combination you can use to drag the cube, and to configure edge flipping.

Figure 2.9 Desktop Cube Tabbed Page



Desktop Cube

By default, this option gives you four desktops on the faces of a virtual cube that you can rotate to access each desktop. This provides extra space in which to arrange open applications and windows. For example, you can put an editor on one desktop, some shells on another, and your e-mail application and Web browser on the third desktop. Using `Ctrl + Alt + ←` and `Ctrl + Alt + →`, you can rotate the cube to access the programs running in the selected desktop and avoid windows piled on top of each other on one desktop.

Dragging a window to the edge of the screen rotates the cube and places the window on the new desktop. To rotate the cube manually in 3-D, press `Ctrl + Alt`, left-click the desktop, then drag the mouse pointer. `Ctrl + Alt + Shift + ←` or `→` lets you rotate the cube while taking the currently selected window with you.

Use the options under *Drag the cube with the mouse by using* to change the default keystrokes used to rotate the cube.

For information on how to add an image behind your cube, see [Section “Displaying a Skydome Image Behind the Cube”](#) (page 75).

Edge Flipping

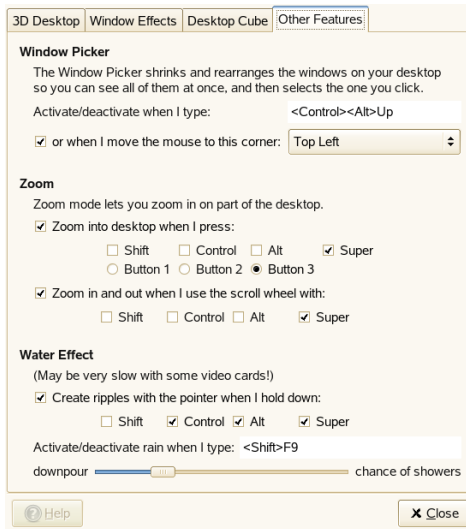
When edge flipping is enabled, the desktop cube rotates to the next face when you bump the mouse pointer to the edge of the screen. You can choose to always enable edge flipping or to enable edge flipping only when you drag a window or icon to the edge of the desktop.

Use the slider bar at the bottom of the tabbed window to specify how long (in microseconds) it takes to rotate the cube after you bump the edge of the desktop with a window or the mouse pointer.

Other Features

Use the options on this tabbed page to configure window tiling, zooming, and water effects.

Figure 2.10 *Other Features Tabbed Page*



Window Picker

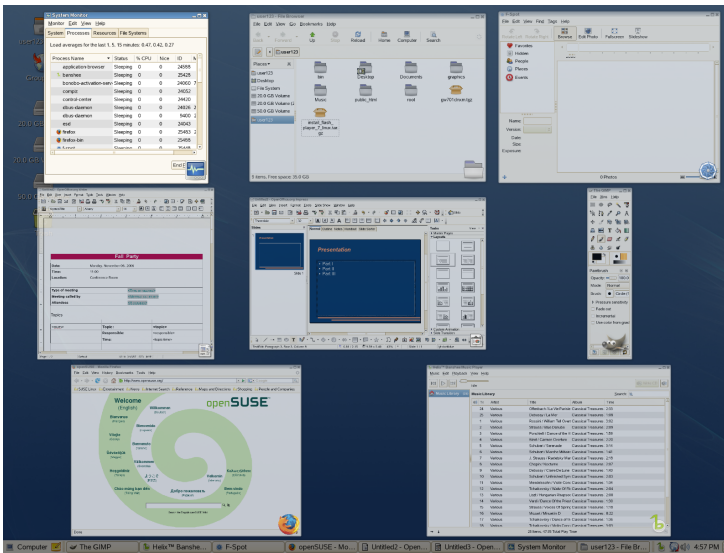
This option lets you tile (or scale) the windows on your desktop so that you can see what windows you have open and select a specific one. This also provides you with a snapshot of all applications open on your desktop. Pressing Ctrl + Alt + ↑ shrinks all windows and rearranges them on the screen so that they do not overlap.

Selecting a window with the mouse causes all windows to return to their original size and position, with the selected window on top.

To change the keystrokes used to tile windows, click the box to the right of *Activate/deactivate when I type* until *New accelerator* appears. Then press the keystrokes you want to use. The new keystrokes appear in the box.

You can also choose to tile windows by moving the mouse pointer to the top left (default), top right, bottom left, or bottom right of the screen.

Figure 2.11 Application Tiling



Zoom

These options give you the ability to zoom in and out of areas on your screen, which significantly improves desktop accessibility for visually impaired users or for anyone who wants to see a part of the screen displayed in a larger size.

By default, pressing the Super key (the Windows key)+Button 3 zooms in on part to the desktop (if you have a two-button mouse, press the Super key then press the left and right buttons simultaneously). You can move the mouse while holding those buttons down to see other parts of the screen. You can also press the Super key and use the scroll wheel on the mouse to manually zoom in and out of the desktop.

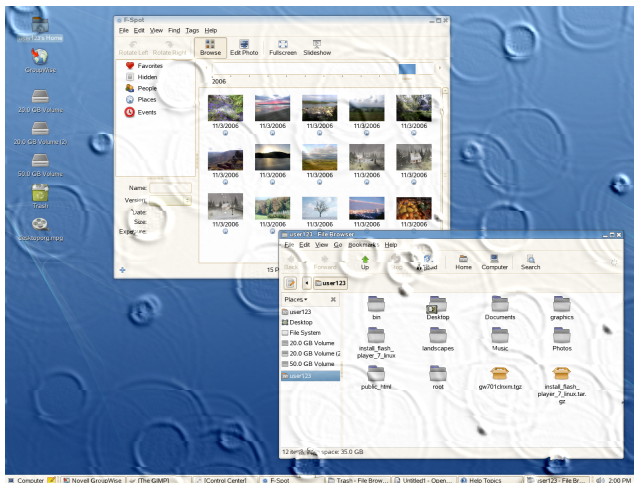
You can choose to deactivate any of these options, or to change the zoom keystrokes.

Water Effect

This option creates a ripple effect on your screen when you hold down the specified key or key combination (Ctrl + Alt + Super by default) and move the mouse pointer. You can also enable or disable a rain effect when you press Shift + F9. To change the keystrokes used to enable and disable the rain effect, click the box to the right of *Activate/deactivate rain when I type* until *New accelerator* appears. Then press the keystrokes you want to use. These new keystrokes will appear in the box.

Use the slider bar at the bottom of the tabbed window to specify the intensity of the rain effect.

Figure 2.12 *Water Effect*



Xgl Shortcuts

The following table contains a list of the default keystrokes and mouse movements you can use to perform desktop effects. To change any of these shortcuts, see [Section “Modifying Desktop Effects”](#) (page 66).

Table 2.1 *Desktop Effects Shortcuts*

Effect	Shortcut
Activate or deactivate rain effect	Shift + F9
Create ripples with the mouse pointer	Ctrl + Alt + Super (Windows key) and move the mouse pointer
Panoramic view of all desktop cubes	Ctrl + Alt + ↓ (use the Left and Right arrows to scroll)
Rotate desktop cube	Ctrl + Alt + ← or → or drag a window to the edge of the screen
Rotate desktop cube manually	Ctrl + Alt + left-click the desktop and drag the mouse pointer
Rotate desktop cube while keeping the current active window with you	Ctrl + Alt + Shift + ← or →
Switch windows (thumbnail view)	Alt + →
Tile windows	Ctrl + Alt + ↑ or move the mouse pointer to the top left corner of the screen
Wobbly window	Left-click the window and drag
Zoom once	Super key (Windows key) and Button 3
Zoom in manually	Super key (Windows key) and scroll wheel up
Zoom out manually	Super key (Windows key) and scroll wheel down

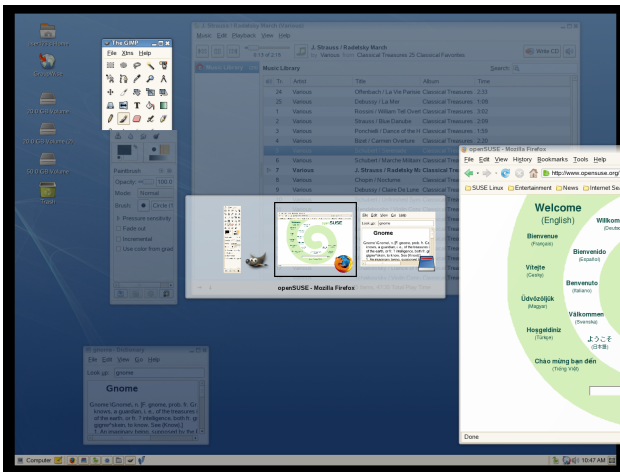
More Desktop Effects

Here are some other things you can do with Xgl.

Switching Tasks

Press **Alt + →** | to display a thumbnail view of all windows open on your desktop. While holding the the Alt key down, press **Tab** to cycle through the list of windows. The currently highlighted window will appear in focus. Release the keys to access that window.

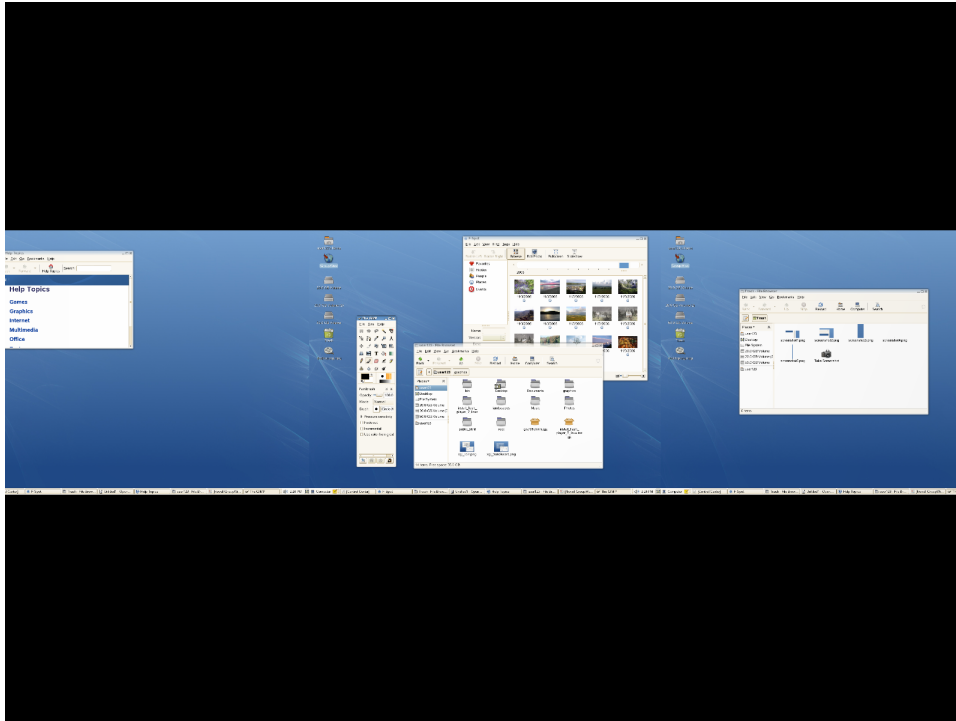
Figure 2.13 *Thumbnail View*



Unfolding the Cube

Press **Ctrl + Alt + ↓** to unfold the desktop cube, opening a panoramic view of all your desktops. Your desktop cube is laid out like a film strip on your screen, and you can use **←** and **→** to select a different screen. This is similar to the switcher feature (**Alt + →** |), but lets you view a thumbnail of your entire desktop instead of only your active windows.

Figure 2.14 *Panoramic View of All Desktop Cubes*



Displaying a Skydome Image Behind the Cube

You can add background wallpaper (also known as a skydome image) that is visible when you rotate or unfold the desktop cube.

- 1 Click *Computer > More Applications > System > GNOME Configuration Editor* or press **Alt + F2** and enter `gconf-editor`.
- 2 Navigate to the `apps/compiz/plugins/cube/screen0/options` registry folder.
- 3 Scroll down the list on the right side of the *Configuration Editor* and select *skydome*.
- 4 Double-click *skydome_image* and specify the path to the skydome image you want to display behind the cube.

Skydome images must be in .png format. The suggested image sizes for skydome images are 1024 x 1024, 1024 x 2048, 1024 x 4096, 2048 x 1024, 2048 x 2048, 2048 x 4096, 4096 x 1024, 4096 x 2048, and 4096 x 4096.

- 5 (Optional) Select *skydome_animated* to make it look like you are moving around the cube when you use your mouse to rotate the cube.
- 6 Click *OK*.
- 7 Click *File > Quit* to close the *Configuration Editor*.

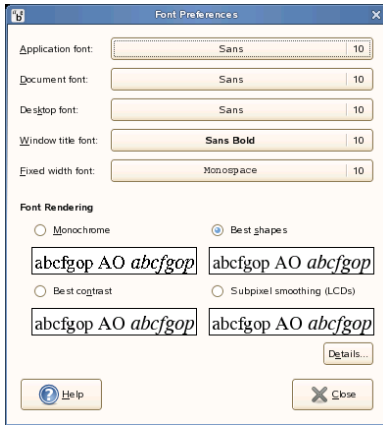
Figure 2.15 Skydome Image



2.3.3 Configuring Fonts

To select the fonts to use in your applications, windows, terminals, and desktop, click *Computer > Control Center > Look and Feel > Fonts*.

Figure 2.16 *Font Preferences Dialog*



The upper part of the dialog shows the fonts selected for applications, documents, the desktop, window titles, and a fixed-width font for terminals. Click one of the buttons to open a selection dialog where you can set the font family, style, and size. For more information on the individual options, click *Help*.

2.3.4 Configuring Menus and Toolbars

You can configure the appearance and behavior of menus and toolbars. Click *Computer > Control Center > Look and Feel > Menus & Toolbars*.

If you want icons to appear in menus, select *Show icons in menus*. Not all menu items have icons.

If you want to be able to define new keyboard shortcuts for menu items, select *Enable menu accelerators*. When this option is enabled, you can change an application shortcut key by placing the mouse pointer over the menu item you want to change, then pressing the new key combination. To remove a shortcut key combination, place the mouse pointer over the menu item, then press *<—* or *Del*.

IMPORTANT: New Keyboard Combinations Can Change Defaults

If you assign a new keyboard combination, you are not warned if you select a combination that was previously assigned to something else. The previous as-

signment is removed and replaced by the new one. There is no automatic way to restore the original, default keyboard shortcut for a command. You must manually reassign the keyboard shortcut.

This feature does not maintain shortcuts that are normally assigned to all applications, such as Ctrl + C for copy. This might lead to inconsistencies in your GNOME applications.

If you want to be able to move toolbars to other locations on the screen, click *Detachable toolbars*. When this option is enabled, a handle displays on the left side of the toolbars in your applications. To move a toolbar, click and hold on the handle, then drag the toolbar to the new location.

Select one of the following options to specify how toolbar button labels display in your GNOME-compliant applications:

Text below icons

Displays icon labels below the icons for each button.

Text beside icons

Displays icons on the toolbar, with text beside the most important icons.

Icons only

Displays icons only, without any text labels.

Text only

Displays text labels on each button, without icons.

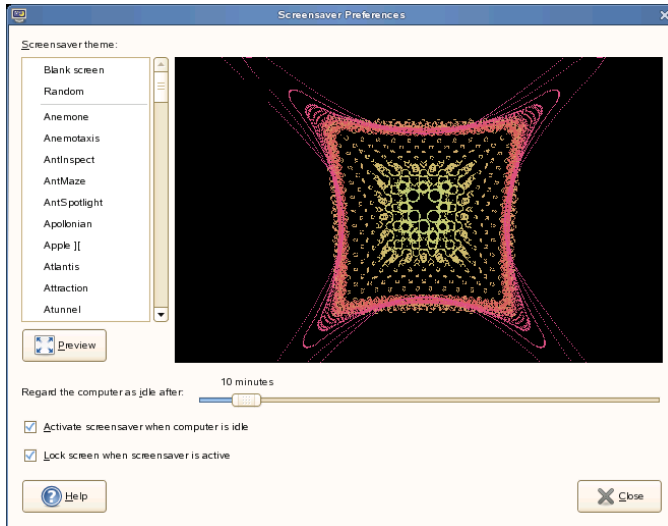
A preview of the selected option appears in the *Menu and Toolbar Preferences* dialog.

2.3.5 Configuring the Screen Saver

A screen saver is a program that blanks the screen or displays graphics when the computer is not used for a specified amount of time. Originally, screen savers protected monitors from having images burned into them. Now they are used primarily for entertainment or security.

To configure a screen saver, click *Computer > Control Center > Look and Feel > Screensaver*.

Figure 2.17 *Screensaver Preferences Dialog*



You can select from *Random* (random selection of screen savers from a custom-defined list), *Blank Screen*, or a selection of installed screen savers.

Select a screen saver from the list to choose it. The currently selected screen saver is displayed in the small preview window. Specify the amount of time that the screen is to be idle before the screen saver is activated, and whether the screen is locked when the screen saver is activated.

2.3.6 Choosing a Theme

A theme is a group of coordinated settings that specifies the visual appearance of a part of the desktop. You can choose themes to change the appearance of the desktop. Use the *Theme Preferences* tool to select from a list of preinstalled themes. The list of available themes includes several themes for users with accessibility requirements.

To choose a theme, click *Computer > Control Center > Look and Feel > Theme*.

A theme contains settings that affect different parts of the desktop, as follows:

Controls

The controls setting for a theme determines the visual appearance of windows, panels, and applets. It also determines the visual appearance of the GNOME-compliant interface items that appear on windows, panels, and applets, such as menus, icons, and buttons. Some of the controls setting options that are available are designed for special accessibility needs. You can select an option for the controls setting in the *Controls* tabbed page of the *Theme Details* tool.

Window frame

The window frame setting for a theme determines the appearance of the frames around windows only. You can select an option for the window frame setting in the *Window Border* tabbed page of the *Theme Details* tool.

Icon

The icon setting for a theme determines the appearance of the icons on panels and the desktop background. You can select an option for the icon setting in the *Icons* tabbed page of the *Theme Details* tool.

The color settings for the desktop and applications are controlled using themes. You can choose from a variety of preinstalled themes. Selecting a style from the list overview applies it automatically. *Details* opens another dialog where you can customize the style of single desktop elements, like window content, window borders, and icons. Making changes and leaving the dialog by clicking *Close* switches the theme to *Custom Theme*. Click *Save Theme* to save your modified theme under a custom name. The Internet and other sources provide many additional themes for GNOME as `.tar.gz` files. Install these with *Install Theme*.

Procedure 2.1 *Creating a Custom Theme*

The themes that are listed in the *Theme Preferences* tool are different combinations of controls options, window frame options, and icon options. You can create a custom theme that uses different combinations of options.

- 1 Click *Computer > Control Center > Look and Feel > Theme*.
- 2 Select a theme from the list of themes, then click *Theme Details*.
- 3 Select the controls option that you want to use in the custom theme from the list in the *Controls* tabbed page.

- 4 Click the *Window Border* tab, then select the window frame option that you want to use in the custom theme.
- 5 Click the *Icons* tab, then select the icons option that you want to use in the custom theme.
- 6 Click *Close > Save Theme*.

A *Save Theme to Disk* dialog is displayed.

- 7 Type a name and a short description for the custom theme in the dialog, then click *Save*.

The custom theme now appears in your list of available themes.

Procedure 2.2 *Installing a New Theme*

You can add a theme to the list of available themes. The new theme must be an archive file that is tarred and zipped (a `.tar.gz` file).

- 1 Click *Computer > Control Center > Look and Feel > Theme*.
- 2 Click *Install Theme*.
- 3 Specify the location of the theme archive file in the *Location* field, then click *OK*.

You can also click *Browse* to browse for the file.

- 4 Click *Install* to install the new theme.

Procedure 2.3 *Installing a New Theme Option*

You can install new controls options, window frame options, or icons options. You can find many controls options on the Internet.

- 1 Click *Computer > Control Center > Look and Feel > Theme*.
- 2 Click *Theme Details*, then click the tab for the type of theme you want to install.

For example, to install an icons option, click the *Icons* tab.

- 3 Click *Install Theme*.
- 4 Specify the location of the theme archive file in the *Location* field, then click *OK*.
- 5 Click *Install* to install the new theme option.

Procedure 2.4 *Deleting a Theme Option*

You can delete controls options, window frame options, or icons options.

- 1 Click *Computer > Control Center > Look and Feel > Theme*.
- 2 Click *Theme Details*, then click the tab for the type of option you want to delete.
- 3 Click *Go To Theme Folder*.

A file manager window opens on the default option folder.

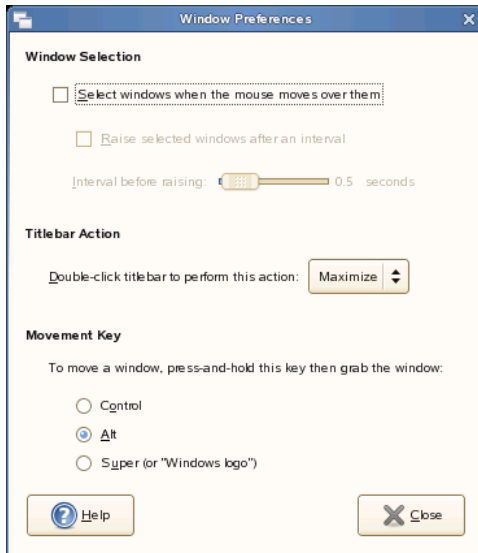
- 4 Use the file manager window to delete the option.

2.3.7 Customizing Window Behavior

Use the *Window Preferences* tool to customize window behavior for the desktop. You can determine how a window reacts to contact with the mouse pointer or to double-clicks on its title bar, and you can define which key to hold for moving an application window.

To customize window behavior, click *Computer > Control Center > Look and Feel > Windows*.

Figure 2.18 *Window Preferences Dialog*



When several application windows populate the desktop, the active one by default is the one last clicked. Change this behavior by activating *Select Windows When the Mouse Moves over Them*. If desired, activate *Raise Selected Window after an Interval* and adjust the latency time with the slider. This raises a windows a short time after the window receives focus.

Application windows can be shaded (rolled up) by double-clicking the title bar, leaving only the title bar visible. This saves space on the desktop and is the default behavior. It is also possible to set windows to maximize when the title bar is double-clicked.

Using the radio buttons, select a modifier key to press for moving a window (Ctrl, Alt, Hyper, or the Windows key).

2.4 Personal

In the following sections, find examples of how to configure some personal aspects of your GNOME desktop, like keyboard accessibility, keyboard shortcuts, assistive technology support, and learn how to change your password or manage virtual keyrings.

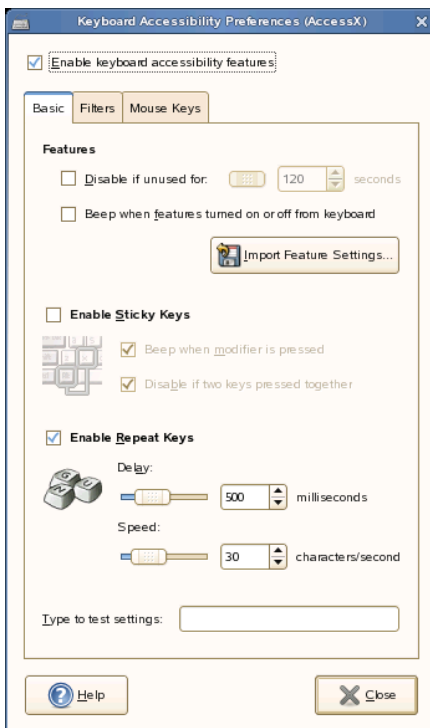
2.4.1 Configuring Keyboard Accessibility Settings

GNOME provides keyboard settings designed to help users with motion impairments using the GNOME desktop. Some of the available settings include:

- How long a key is pressed and held before being recognized as valid input
- Whether the keyboard can be used as a mouse
- Whether key combinations that use Alt, Ctrl, and Shift can be duplicated with “sticky keys”

To configure keyboard accessibility settings, click *Computer > Control Center > Personal > Accessibility*.

Figure 2.19 Keyboard Accessibility Preferences Dialog



Before you can modify any settings, you need to activate *Enable Keyboard Accessibility Features* at the top of the window.

On three tabs, you can then define various settings for keys:

Sticky Keys

Some keyboard shortcuts require that one key (a modifier key) is kept pressed constantly (this applies to Alt, Ctrl, and Shift) while the rest of the shortcut is typed. When sticky keys are used, the system regards those keys as staying pressed after being pressed once. To enable sticky keys, activate the appropriate check box. For an audible feedback generated each time a modifier key is pressed, activate *Beep when the modifier is pressed*. If *Disable if two keys pressed together* is selected, the keys do not “stick” anymore when two keys are pressed simultaneously. The system then assumes that the keyboard shortcut has been completely entered.

Repeat Keys

Activate *Enable Repeat Keys* to make settings with sliders for *Delay* and *Speed*. This determines how long a key must be pressed for the automatic keyboard repeat function to be activated and at what speed the characters are then typed.

Test the effect of the settings in the field at the bottom of the dialog. Select parameters that reflect your normal typing habits.

Slow Keys

To prevent accidental typing, switch to the *Filters* tab and activate *Enable Slow Keys*. Set a minimum time limit that a key must be pressed and held before it is recognized as valid input by the system. Also determine whether audible feedback should be provided for keypress events, accepted keypresses, and the rejection of a keypress.

Bounce Keys

To prevent double typing, activate *Enable Bounce Keys* on the *Filters* tab and set a minimum time limit for accepting two subsequent keypress events of the same key as the input of two individual characters. If desired, activate audible feedback upon rejection of a keypress event.

Toggle Keys

If you activate *Enable Toggle Keys*, the system gives an audible feedback when a keycap modifier key is pressed.

Mouse Keys

To use the keyboard as mouse, switch to the *Mouse Keys* tab and activate *Enable Mouse Keys*. The mouse pointer is controlled with the arrow keys of the number pad. Use the sliders to set the maximum speed of the mouse pointer, the acceleration time until the maximum speed is reached, and the latency between the pressing of a key and the cursor movement.

You can also choose to automatically disable the keyboard accessibility preferences after some time of inactivity. To do so, click the *Basic* tab and activate *Disable if unused for* and set an appropriate time limit (measured in seconds) with the slider. The system can additionally provide audible feedback when the keyboard accessibility functions are activated and deactivated.

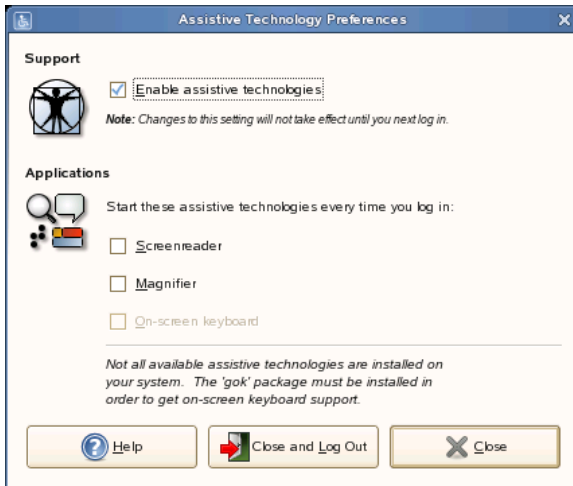
2.4.2 Configuring Assistive Technology Support

Several assistive technologies are included for users with special needs:

- Screen reader
- Screen magnifier
- On-screen keyboard

To configure assistive technology options, click *Computer > Control Center > Personal > Assistive Technology Preferences*. To activate the technologies, first select *Enable Assistive Technologies* and then choose the technologies you want to enable every time you log in.

Figure 2.20 *Assistive Technology Preferences Dialog*



The `gok` package must be installed in order to get on-screen keyboard support, and the `gnopernicus` and `gnome-mag` packages must be installed in order to get screen-reading and magnifying capabilities.

If these packages are not installed on your system (they are installed by default during installation), install them with the following procedure:

- 1 Start the YaST package manager from the command line or open YaST and select *Software > Software Management*.
- 2 For *Filter*, select *Search*.
- 3 In the *Search* field, enter the name of the package you want to install and press Enter. The package is listed in the right frame.
- 4 Select it for installation. Once done, you can search for more packages and select them for installation in one go.
- 5 Click *Accept* to start the installation of the packages.

2.4.3 Changing Your Password

For security reasons, it is a good idea to change your login password from time to time. To change your password:

- 1 Click *Computer > Control Center > Personal > Change Password*.
- 2 Type your old (current) password.
- 3 Type your new password.
- 4 Confirm your new password by typing it again, then click *OK*.

2.4.4 Managing Keyrings

GNOME Keyring Manager provides an interface for viewing secrets stored in keyrings on your computer. Secrets include such items as:

- Passwords
- Wireless credentials
- Certificates
- Credentials for logging in to another computer

Most users will not need to use GNOME Keyring Manager because secrets are automatically managed by the applications that create them. Whenever any GNOME application that uses GNOME Keyring needs to access passwords or credentials stored there, a check is made if the keyring is locked or not. If it is locked, you will be prompted for the master password to unlock the keyring.

To open Keyring Manager (independent of any application interaction) press **Alt + F2** and enter `gnome-keyring-manager`.

To delete a secret:

- 1 In the list of keyrings on the left side of Keyring Manager, click *Default*.

- 2 Click the secret you want to delete in the list in the top right area of Keyring Manager.
- 3 Click *Keyring Delete Keyring*.

The secret is removed from the list.

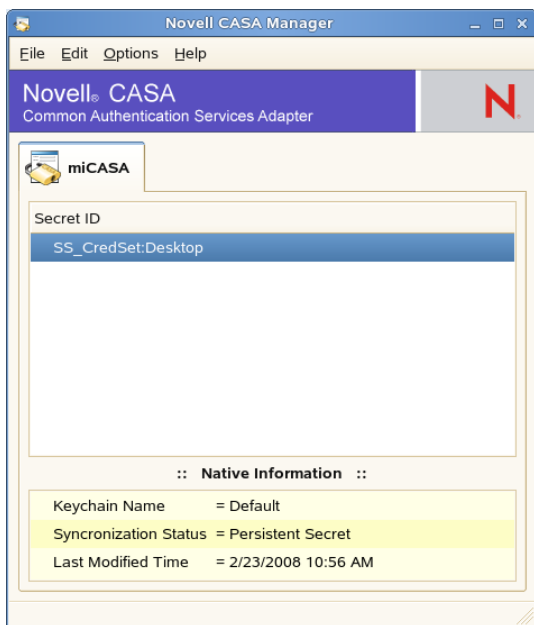
2.4.5 Using Single Sign-on with Novell CASA

Single sign-on is a method of access control that enables users to authenticate once and thus gain access to the resources of multiple software systems. CASA (Common Authentication Service Adapter) lets you manage authentication credentials across several platforms like SUSE Linux Enterprise, Microsoft* Windows* and Macintosh* OS 10. You can access and store passwords of the programs and services installed on any of these platforms. CASA also interfaces with GNOME Keyring, KDE's KWallet, and the Firefox Password Manager, allowing you to manage all of these from one interface if desired.

Before you can use CASA to manage your passwords, CASA needs to be enabled in YaST. To do so, start YaST and click *Security > CASA*. In the *CASA Configuration* dialog, click *Enable CASA* and after the confirmation message, click *Finish* to close YaST.

Procedure 2.5 *Managing Passwords with Novell CASA*

- 1 Click *Computer > Control Center > Personal > Novell CASA Manager*.
- 2 If the CASA services are not available yet, a message box lets you start the appropriate YaST module to enable CASA first.
- 3 If you start CASA for the first time, you are prompted for a master password to encrypt and secure your credentials. Enter your master password twice and click *OK*. The *Novell CASA Manager* opens.



IMPORTANT: Persistent Storage in CASA is Tied to Login Password

Verify that your login password has been recorded and an *SS_Cred-Set:Desktop* entry is shown on the *miCASA* tab. If the entry does not appear, log out from your desktop and log in again to have your password recorded with CASA. If your login password is not known to CASA, you cannot use single sign-on.

- 4 To configure CASA, select *Options > Preferences*.
- 5 In the *Preferences* dialog, select the stores that should be supported by CASA and click *OK*. A tab is added for each store you selected, so you can now access and manage the passwords stored there from *Novell CASA Manager*.
- 6 To delete a password from one of the stores, select the entry, right-click and choose *Delete*.
- 7 If you need to change the CASA master password, select *Options > Change Master Password*.

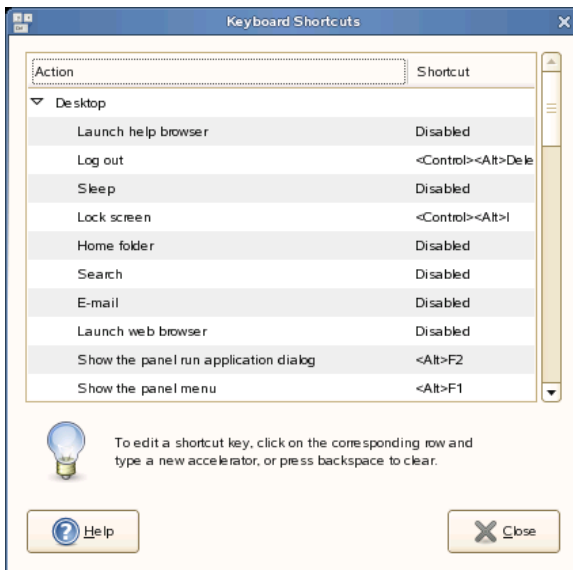
You can also edit existing passwords, import or export passwords, or link passwords with Novell CASA. For detailed information, click *Help > Contents* to access the CASA online help. Find the complete CASA documentation at <http://developer.novell.com/wiki/index.php/Special:Downloads/casa>.

2.4.6 Customizing Keyboard Shortcuts

A keyboard shortcut is a key or combination of keys that provides an alternative to standard ways of performing an action. You can customize the keyboard shortcuts for a number of actions.

To open the Keyboard Shortcuts tool, click *Computer > Control Center > Personal > Shortcuts*.

Figure 2.21 *Keyboard Shortcuts Dialog*



To change the shortcut keys for an action, select the action and then press the keys you want to associate with the action. To disable the shortcut keys for an action, click the shortcut for the action, then press <—.

2.5 System

In the following sections, 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, Beagle search options, and audio preferences.

2.5.1 Configuring Streaming Audio and Video

With GNOME Control Center, you can configure which audio and video plug-ins you want to use for streaming multimedia. To open this application, click *Computer > Control Center > System > GStreamer Properties*.

In most cases, you should use the default selections. However, if you want to select other plug-ins, select the plug-in you want from the menus. The *Audio* tab lists the plug-ins for audio input and output. The *Video* tab lists the video plug-ins.

Click *Close* when you are finished. The system is immediately configured to use the selected plug-ins.

2.5.2 Configuring Language Settings

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

You can set the following language settings:

- Primary language
- Whether the keyboard language setting should depend on the primary language
- Whether the time zone should depend on the primary language
- Secondary languages

To configure your language settings:

- 1 Click *Computer > Control Center > System > Language*.

- 2 Enter the `root` password.

If you do not know the root password, contact your system administrator. You cannot continue without the root password.

- 3 Specify the primary language, whether you want to adapt the keyboard layout or time zone to the primary language, and any secondary languages you need to support on the computer.

- 4 Click *Accept*.

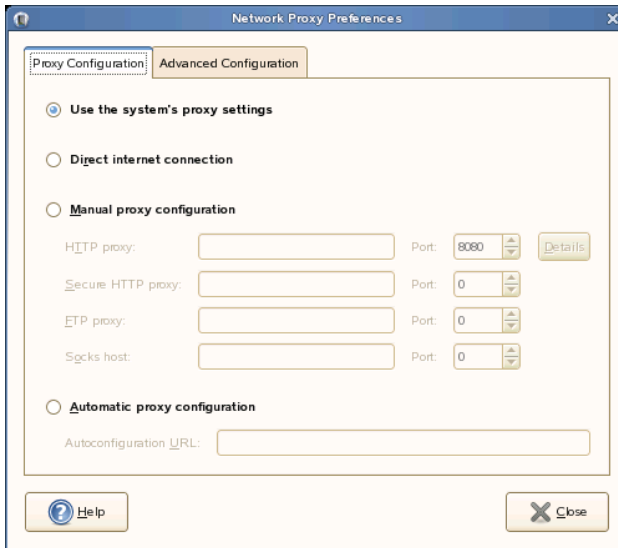
The language configuration settings are written to several configuration files. This process can take a few minutes. The new settings take effect immediately after they are written to the configuration files.

2.5.3 Configuring Network Proxies

The Network Proxy Configuration tool lets you configure how your system connects to the Internet. You can configure the desktop to connect to a proxy server and specify the details of the server. A proxy server is a server that intercepts requests to another server and fulfills the request itself, if it can. You can specify the Domain Name Service (DNS) name or the Internet Protocol (IP) address of the proxy server. A DNS name is a unique alphabetic identifier for a computer on a network. An IP address is a unique numeric identifier for a computer on a network.

Click *Computer > Control Center > System > Network Proxies*.

Figure 2.22 *Network Proxy Configuration Dialog*



For more information on the individual options, click *Help*.

2.5.4 Configuring Power Management

The Power Management module lets you manage your system's power-saving options. It is especially useful for extending the life of a laptop's battery charge. However, several options also help to save electricity when you are using a computer that is plugged in to an electricity source.

Sleep mode shuts down the computer when it is unused for a specified amount of time. Whether you are using battery or AC power, you can specify the amount of time that the computer remains unused before it is put to sleep. You can also put the computer's display to sleep without shutting down the computer, saving the power required by the display.

Sleep mode is especially important when the computer is operating under battery power. Both the screen and the computer draw power from the battery, so you can save a significant amount of battery power by shutting down one or both. It is common to put the display to sleep after a shorter period of time. Then, if the computer remains unused for an additional amount of time, it is also put to sleep.

There are several sleep modes or actions you can set in the Power Management module:

Do nothing

The computer does not shut down or automatically go into any kind of power-saving mode. If you have a laptop, the laptop continues to run normally when the lid is closed.

Blank screen

The screen is blanked, reducing power consumption.

Suspend

Suspend mode turns off power-consuming computer components such as the display and the hard drive without saving the contents of RAM. Any unsaved data is lost.

Hibernate

The computer saves the contents of RAM to the hard disk, then shuts down. When you turn the computer on again, the saved data is put back into RAM, restoring your computer to the state it was in before it shut off. *Hibernate* requires an amount of free hard disk space equal to the amount of RAM installed on the computer.

To open the Power Management module, click *Computer > Control Center > System > Power Management*.

Procedure 2.6 *Specifying Your Computer's Sleep Settings*

- 1 Click the tab for the type of power you are using: if your computer uses AC power, click *Running on AC*. If your computer runs on battery power, click *Running on Battery*. If your computer operates on both AC and battery power, you can configure the settings on both tabs.

The settings you choose are in effect no matter which power source you use.

- 2 Use the sliders to set the amount of inactive time that passes before the display and computer go into sleep mode.

When the display is in sleep mode, the computer continues to run. When the computer is in sleep mode, power to the display and hard disk is shut off and the computer uses only the power needed to maintain the contents of RAM.

- 3 If the computer is a laptop, set the actions you want taken when the laptop lid is closed.

- 4 If you configure how a laptop manages battery power, configure the action you want taken if battery power reaches a critical level.

Choose the option you prefer by selecting it from the menu. If you have sufficient free disk space, *Hibernate* is the best choice.

- 5 If you want power management to prefer power savings over performance, select the check box for that option.

If the check box is selected, the performance of some power-consuming features, such as the display, is reduced slightly to reduce power consumption.

- 6 On the *General* tab, you can set further options, for example the action to take when the power button is pressed, or the sleep type to use when the computer is inactive. The options available there depend on the type of computer you use (laptop or other computer).

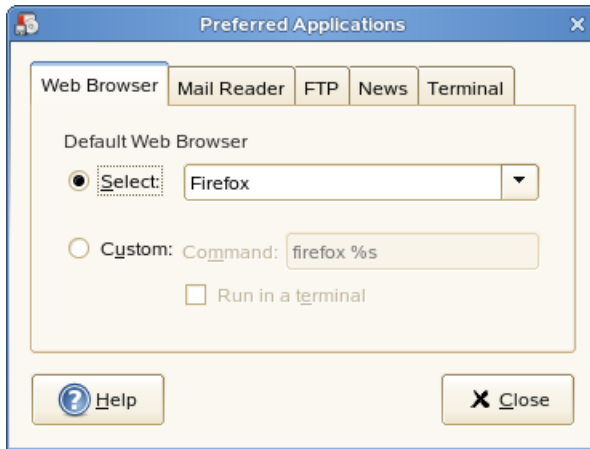
- 7 You can also define when and how to display the power icon in the notification area.

- 8 When all options are set according to your wishes, click *Close*. The options you selected go into effect immediately.

2.5.5 Setting Preferred Applications

The Preferred Applications module allows you change the default application for various common tasks such as browsing the internet, sending mails or transferring data with FTP.

Figure 2.23 *Preferred Applications*



- 1 Click *Computer > Control Center > System > Preferred Applications*.
- 2 Click the tab for the type of application you want to set.
- 3 Select one of the available from the applications from the *Select* menu or enter the command used to start the application.
- 4 Click *Close*.

The changes take effect immediately.

2.5.6 Setting Session Sharing Preferences

The *Remote Desktop Preference* dialog box 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 *Computer > Control Center > System > Remote Desktop*.



- 2 To share your desktop session with other users, activate *Allow other users to view your desktop*. All keyboard, pointer, and clipboard events from the remote user are ignored.
- 3 If you want or need to allow other users to access and control your session from a remote location, activate *Allow other users to control your desktop*. Click the highlighted text below to send the system address by e-mail to a remote user.
- 4 Make use of the security options available: if *Ask you for confirmation* is activated, remote users require your confirmation before they can connect to your session. To achieve a higher security level, activate *Require the user to enter this password* (if authentication is used).

2.5.7 Configuring Search with Beagle Settings

Beagle is the search engine used on the GNOME desktop. By default, Beagle is configured to start automatically and index your home directory. If you want to change these settings, specify the number of results displayed after a search or change the Beagle privacy settings, click *Computer > Control Center > System > Search & Indexing*.

Figure 2.24 *Search Preferences*



For more information, see [Section 9.4, “Setting Search Preferences”](#) (page 199) and [Section 9.6, “Preventing Files and Directories from Being Indexed”](#) (page 201).

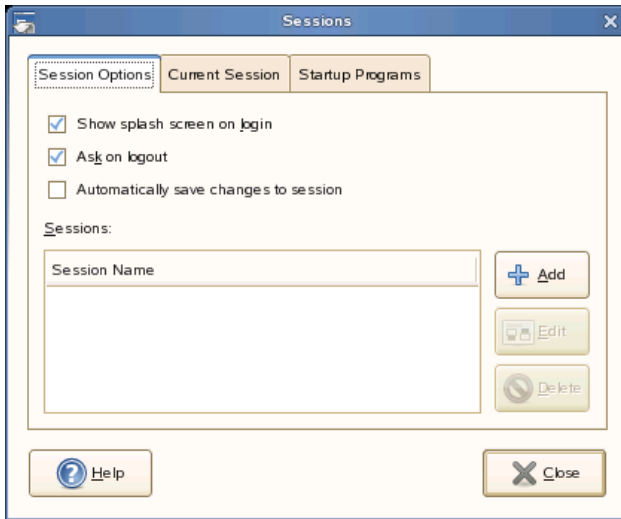
2.5.8 Managing Sessions

This module lets you manage your sessions. A session occurs between the time that you log in to the desktop environment and the time that you log out. You can set session preferences and specify which applications to start when you begin a session. You can configure sessions to save the state of applications and then restore the state when you start another session.

You can also use this preference tool to manage multiple sessions. For example, you might have a mobile session which starts applications you use most frequently when traveling, a demo session that starts applications used to present a demonstration or slide show to a customer, and a work session that uses a different set of applications when you are working in the office.

Click *Computer > Control Center > System > Sessions*.

Figure 2.25 *Sessions Dialog—Session Options Page*



Procedure 2.7 *Setting Session Preferences*

- 1 Use the *Session Options* tab to manage multiple sessions and set preferences for the current session.

For example, to manage multiple sessions, click *Add* and enter a session name to create a new session. When you log in to GDM, you can then choose which of the multiple session to use.

- 2 On the *Current Session* tab, you can modify options for your current session. For more information on the individual options, click *Help*.
- 3 On the *Startup Programs* tab you can add programs to start automatically when beginning a session. Click *Add* and specify the command that runs this application. If you specify more than one startup application, use the *Order* box to specify the startup order of the each application. The commands are executed automatically when you log in.

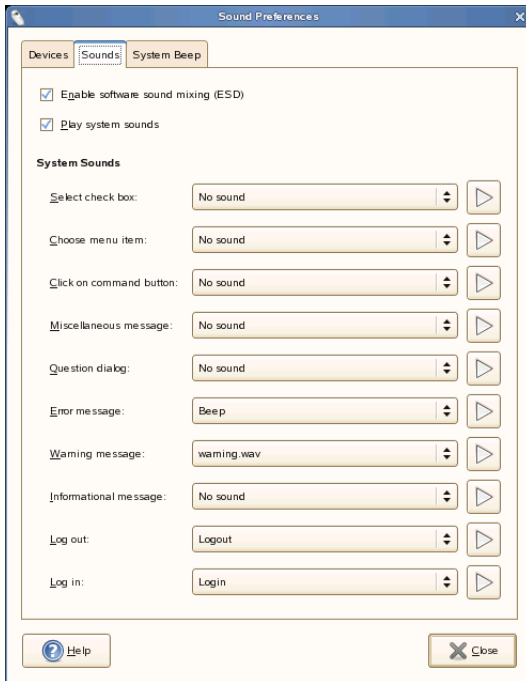
You can also *Delete* a startup application or temporarily *Disable* a startup application.

2.5.9 Setting Sound Preferences

The *Sound Preferences* tool lets you control when the sound server starts. You can also specify which sounds to play when particular events occur.

Click *Computer > Control Center > System > Sound* to open the *Sound Preferences* tool.

Figure 2.26 *Sound Preferences Dialog*



Use the *Sounds* tab to specify when to launch the sound server. You can also enable sound event functions.

Click *Enable software sound mixing (ESD)* to start the sound server when you start a session. When the sound server is active, the desktop can play sounds.

Click *Play system sounds* to play sounds when particular events occur in the desktop.

Finally, select the sound to play at each of the specified events.

Some applications play a beep sound to indicate a keyboard input error. Use the *System Beep* tab to set preferences for the system beep.

2.5.10 Configuring Administrative Settings with YaST

For your convenience, YaST is available from the Control Panel as well as the Applications menu. For information about using YaST, refer to *System Configuration with YaST* in the *Deployment Guide*.

Part II. Office and Collaboration

The OpenOffice.org Office Suite

OpenOffice.org is a powerful 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 OpenOffice.org, 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 covers information about the Novell® edition of OpenOffice.org and some of the key features you should be aware of when getting started with the suite.

3.1 Understanding OpenOffice.org

OpenOffice.org consists of several application modules (subprograms), which are designed to interact with each other. They are listed in [Table 3.1](#). A full description of each module is available in the online help, described in [Section 3.8, “Finding Help and Information About OpenOffice.org”](#) (page 137).

Table 3.1 *The OpenOffice.org Application Modules*

Module	Purpose
Writer	Word processor application module
Calc	Spreadsheet application module
Impress	Presentation application module

Module	Purpose
Base	Database application module
Draw	Application module for drawing vector graphics
Math	Application module for generating mathematical formulas

The appearance of the application varies depending on the desktop or window manager you use. Regardless of the appearance, the basic layout and functions are the same.

This section contains information that applies to all of the application modules in OpenOffice.org. Module-specific information can be found in the following subsections.

3.1.1 Advantages of the Novell Edition of OpenOffice.org

SUSE Linux Enterprise Desktop includes the Novell edition of OpenOffice.org. The Novell edition includes several enhancements that are not yet included in the standard edition.

Calc Enhancements

The Novell edition of OpenOffice.org Calc includes the following enhancements that are not found in the standard edition:

- Improved Excel compatibility for certain functions (for example, ADDRESS/OFFSE).
- Improved ergonomics, such as fixes for the standard editions missing keybindings and the “merge and center” problem.
- Support for R1C1-style addresses.
- Interoperation between OpenOffice.org Data Pilots and Microsoft* Pivot Tables*.
- The ability to edit Data Pilots after they are created.

- Addition of the GETPIVOTDATA function to help manipulate information from Pivot Tables.
- Inclusion of a subset of Excel VBA macros that can be loaded and run in OpenOffice.org as if they were native macros, allowing a number of small accounting and management tools to be migrated to OpenOffice.org without having to rewrite them to target StarBasic.
- A simple linear solver that allows simple numerical analysis.

Writer Enhancements

The Novell edition of OpenOffice.org Writer includes the following enhancements that are not found in the standard edition:

- The Navigator provides a tree view of the document structure, providing improved document navigation.
- Improved change-tracking interoperability.
- Better HTML export.
- Improved printing of fonts.
- Enhanced “FormField handling”.

“Form Fields” are a concept in Microsoft Office which allows users to add text fields, check boxes and drop down lists into documents in order to create forms which are easy to fill out.

If you want to disable the support for enhanced fields and go with the limited form fields set the following configuration item:

```
<?xml version="1.0" encoding="UTF-8"?>
<oor:component-data
  xmlns:oor="http://openoffice.org/2001/registry"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  oor:name="Common"
  oor:package="org.openoffice.Office">
  <node oor:name="Filter">
    <node oor:name="Microsoft">
      <node oor:name="Import">
        <prop oor:name="ImportWWFieldsAsEnhancedFields" oor:type="xs:boolean">
```

```
<value>false</value>
</prop>
</node>
</node>
</node>
</oor:component-data>
```

Font Improvements

The Novell edition of OpenOffice.org includes several font enhancements, including:

- Aliased (bitmap) fonts are not allowed, preventing poor display of fonts when a document is projected.
- Inclusion of a set of fonts licensed from AGFA, which are metrically compatible with some key, default Microsoft fonts and are transparently mapped to the corresponding Microsoft fonts when documents are exported or imported.
- An improved OpenSymbol font with attractive bullets rather than a symbol which is displayed when a glyph is missing.

OpenClipart

The linux version of the Novell edition of OpenOffice.org includes a large selection of free clipart from the OpenClipart <http://openclipart.org> project. To access this clipart, click *Tools > Gallery*.

Multimedia

The Novell edition includes native platform multimedia support with gstreamer on Linux.

Performance Improvements

The Novell edition of OpenOffice.org on Linux starts faster than the standard edition due to several enhancements. This is valid even on lower-memory systems.

GroupWise Integration

The Novell edition of OpenOffice.org includes basic integration with GroupWise, allowing documents to be placed in and loaded from the GroupWise Document Management System.

3.1.2 Using the Standard Edition of OpenOffice.org

You can use the standard edition of OpenOffice.org rather than the Novell edition. If you install the latest version of OpenOffice.org, all of your Novell Edition files remain compatible. However, the standard edition does not contain the enhancements made in the Novell edition.

3.1.3 Compatibility with Other Office Applications

OpenOffice.org can work with documents, spreadsheets, presentations, and databases in many other formats, including Microsoft Office. They can be seamlessly opened like other files and saved back to the original format. Because the Microsoft formats are proprietary and the specifications are not available to other applications, there are occasionally formatting issues. 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 or CSV for spreadsheets.

TIP

For good information about migrating from other office suites to OpenOffice.org, refer to the OpenOffice.org Migration Guide at <http://documentation.openoffice.org/manuals/oooauthors2/0600MG-MigrationGuide.pdf>.

Converting Documents to the OpenOffice.org Format

OpenOffice.org can read, edit, and save documents in a number of formats. It is not necessary to convert files from those formats to the OpenOffice.org 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 OpenOffice.org, do the following:

- 1 Select *File > Wizard > Document Converter*.

- 2 Choose the file format from which to convert.

There are several StarOffice and Microsoft Office formats available.

- 3 Click *Next*.

- 4 Specify where OpenOffice.org should look for templates and documents to convert and in which directory the converted files should be placed.

IMPORTANT

Documents from a Windows partition are usually in a subdirectory of `/windows`.

- 5 Make sure that all other settings are appropriate, then click *Next*.

- 6 Review the summary of the actions to perform, then start the conversion by clicking *Convert*.

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.

Sharing Files with Users of Other Office Suites

OpenOffice.org 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 viewer like Adobe Acrobat Reader.

If you want to share a document for editing

Use one of the standard document formats. The default formats comply with the OASIS standard XML format, making them compatible with a number of applications. TXT and RTF formats, although limited in formatting, might be a good option for text documents. *Comma Separated Value* (CSV) is useful for spreadsheets. OpenOffice.org might also offer your recipient's preferred format, especially Microsoft formats.

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.

3.1.4 Starting OpenOffice.org

Start the application in one of the following ways:

- Click *Computer > OpenOffice.org Writer*.

This opens Writer. To open a different module, click *File > New* from the newly opened Writer document, then choose the module you want to open.

- Click *Computer > More Applications > Office*, then click the name of the OpenOffice.org module you want to start.

- In a terminal window, enter `ooffice`. The OpenOffice.org window opens. Click *File New*, then choose the module you want to open.

If any OpenOffice.org application is open, you can open any of the other applications by clicking *File > New > Name of Application*.

3.1.5 Improving OpenOffice.org Load Time

To speed up the load time of OpenOffice.org by preloading the application at system startup:

- 1 Click *Tools > Options > Memory*.
- 2 Select *Enable systray quickstarter*.

The next time you restart your system, OpenOffice.org will preload. When you open an OpenOffice.org application module, it will open faster.

3.1.6 Customizing OpenOffice.org

You can customize OpenOffice.org to best suit your needs and working style. Toolbars, menus, and keyboard shortcuts 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 it 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 were not. See the OpenOffice.org help files for detailed instructions.

Customizing Toolbars

Use the *Customize* dialog to modify OpenOffice.org toolbars.

- 1 Click the arrow icon at the end of any toolbar.

2 Click *Customize Toolbar*.

3 Select the toolbar you want to customize.

The toolbar you clicked should already be selected. You can change the toolbar you want to customize by selecting the desired toolbar from the *Toolbar* menu.

4 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.

5 Select whether to save your customized toolbar in the OpenOffice.org module you are using or in the document.

- OpenOffice.org module

The customized toolbar is used whenever you open that module.

- Document filename

The customized toolbar is used whenever you open that document.

6 Repeat to customize additional toolbars.

7 Click *OK*.

You can quickly choose the buttons that appear on a particular toolbar.

1 Click the arrow icon at the end of the toolbar you want to change.

2 Click *Visible Buttons* to display a list of buttons.

3 Select the buttons in the list that appears to enable (check) or disable (uncheck) them.

Customizing Menus

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

1 Click *Tools > Customize > Menu*.

- 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*.

Customizing Keyboard Shortcuts

You can reassign currently assigned keyboard shortcuts and assign new shortcuts to frequently used functions.

- 1 Click *Tools > Customize > Keyboard*.

- 2 Select the keys you want to assign to a function, or select the function and assign the keys or key combinations.

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

- 3 Modify, add, or delete keyboard shortcuts as desired.

- 4 Click *OK*.

Customizing Events

OpenOffice.org also provides ways to assign macros to events such as application startup 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 box.

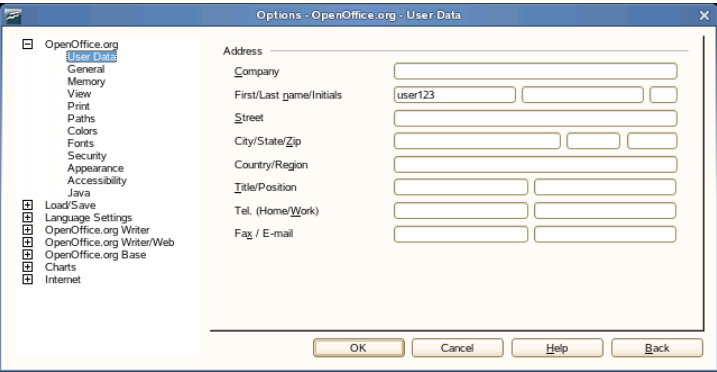
- 3 Assign or remove macros for the selected event.

- 4 Click *OK*.

Changing the Global Settings

Global settings can be changed in any OpenOffice.org 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 3.1 *The Options Window*



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

NOTE

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

Table 3.2 *Global Setting Categories*

Settings Category	Description	Application
<i>OpenOffice.org</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

Settings Category	Description	Application
<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
OpenOffice.org Writer	Configures the global word processing options, such as the basic fonts and layout that Writer should use.	Writer
OpenOffice.org Writer/Web	Changes the settings related to the HTML authoring features of OpenOffice.org.	Writer
OpenOffice.org Calc	Changes the settings for Calc, such as those related to sort lists and grids.	Calc
OpenOffice.org Impress	Changes the settings that should apply to all presentations. For example, you can specify the measurement unit for the grid used to arrange elements.	Impress
OpenOffice.org Draw	Includes the settings related to the vector drawing module, such as the drawing scale, grid properties, and some print options.	Draw
<i>OpenOffice.org Math</i>	Provides a single dialog to set special print options for formulas.	Math

Settings Category	Description	Application
<i>OpenOffice.org 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

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

3.1.7 Finding Templates

Templates greatly enhance the use of OpenOffice.org by simplifying formatting tasks for a variety of different types of documents. OpenOffice.org comes with a few templates, and you can find additional templates on the Internet. You can also create your own. Creating templates is beyond the scope of this guide, but detailed instructions are found in the OpenOffice.org help system and in other documents and tutorials available online.

In addition to templates, you can find other extras and add-ins online. The following table lists a few of the prominent places where you can find templates and other extras. Please note that the information in the following table might not be current, because Web sites often close or change its content.

Table 3.3 *Where to Find OpenOffice.org Templates and Extras*

Location	What You Can Find
OpenOffice.org documentation Web site, see http://documentation.openoffice.org/Samples_Templates/User/template_2_x/index.html	Templates for Calc spreadsheets, CD cases, seed packets, fax cover sheets, and more
Worldlabel.com, see http://www.worldlabel.com/Pages/openoffice-template.htm	Templates for many types of labels

For more information about templates, see [Section 3.2.4, “Using Templates to Format Documents”](#) (page 123) and [Section 3.3.2, “Using Templates in Calc”](#) (page 129).

3.2 Word Processing with Writer

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

This section highlights a few key features of Writer. For more information about these features and for complete instructions for using Writer, look at the OpenOffice.org help or any of the sources listed in [Section 3.8, “Finding Help and Information About OpenOffice.org”](#) (page 137).

NOTE

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

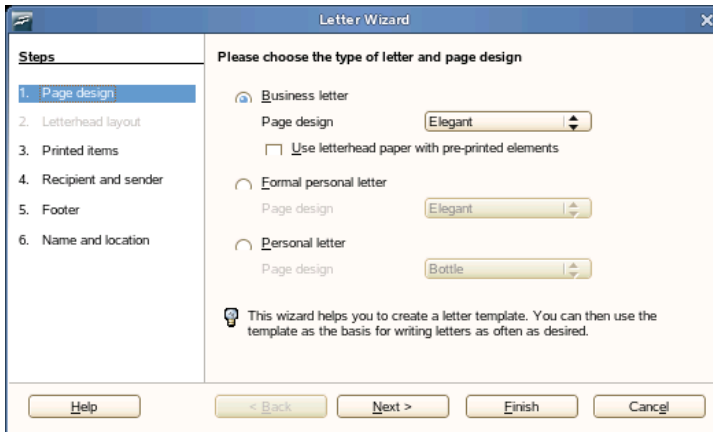
3.2.1 Creating a New Document

There are two ways to create a new document:

To create a document from scratch, click *File > New > Text Document*.

To use a standard format and predefined elements for your own documents, try a wizard. Wizards are small utilities that let you make some basic decisions and then produce a ready-made document from a template. For example, to create a business letter, click *File > Wizards > Letter*. Using the wizard's dialogs, easily create a basic document using a standard format. A sample wizard dialog is shown in [Figure 3.2](#).

Figure 3.2 *An OpenOffice.org 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.

3.2.2 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 OpenOffice.org 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. OpenOffice.org can also save in many popular word processing formats. Likewise, documents created in OpenOffice.org and saved as Word files can be opened in Microsoft Word without any trouble.

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

3.2.3 Formatting with Styles

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

Table 3.4 *About the Types of Styles*

Type of Style	What it Does
Paragraph	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.
Character	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.
Frame	Applies standardized formatting to frames. For example, if your document uses sidebars, you can create frames with specified graphics, borders, location, and other formatting so that all of your sidebars have a consistent appearance.
Page	Applies standardized formatting to a specified type of page. For example, if every page of your document contains a

Type of Style	What it Does
	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.
List	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.

Opening the Styles and Formatting Window

The *Styles and Formatting* window (called the *Stylist* in earlier versions of OpenOffice.org), is a versatile formatting tool for applying styles to text, paragraphs, pages, frames, and lists. To open this window, click *Format > Styles and Formatting*. OpenOffice.org comes with several predefined styles. You can use these styles as they are, modify them, or create new styles.

TIP

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. If you use styles extensively, you might find it helpful to dock the window so that it always present in the same part of the Writer interface. To dock the *Styles and Formatting* window, press Control while you double-click on a gray area in the window. This tip applies to some other windows in OpenOffice.org as well, including the Navigator.

Applying a Style

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

Using Styles Versus Using Formatting Buttons and Menu Options

Using styles rather than the *Format* menu options and buttons helps give your pages, paragraphs, texts, and lists a more consistent look and makes it easier to change your formatting. For example, if you emphasize text by selecting it and clicking the *Bold* button, then later decide you want emphasized text to be italicized, you need to find all of your bolded text and manually change it to italics. 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 style automatically changes from bold to italics.

Text 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 if you later apply the style to the text you bolded with the button. You must manually unbold the 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.

Changing a Style

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

- 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 OpenOffice.org online help.

- 4 Click *OK*.

Creating a Style

OpenOffice.org comes with a collection of styles to suit many users' needs. However, most users eventually need a style that does not yet exist. To create a new style:

- 1 Right-click in any empty space in the *Styles and Formatting* window.

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.

- 2 Click *New*.

- 3 Click *OK*.

- 4 Name your style and choose the settings you want applied with that style.

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

3.2.4 Using Templates to Format Documents

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

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

NOTE

You can convert Microsoft Word templates like you would any other Word document. See [Section “Converting Documents to the OpenOffice.org Format”](#) (page 110) for information.

A detailed explanation of templates is beyond the scope of this section. However, more information is found in the help system, and detailed how-tos are found at the OpenOffice.org Documentation page, see http://documentation.openoffice.org/HOW_TO/index.html.

Creating a Template

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

To create a template:

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

The category is the folder where the template is stored.

- 6 Click *OK*.

3.2.5 Working with Large Documents

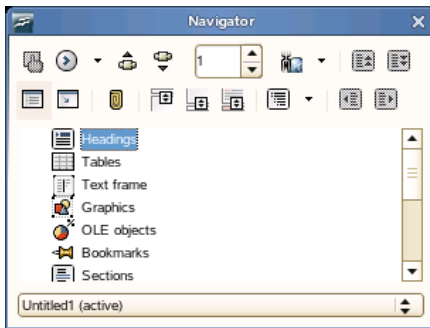
You can use Writer to work on large documents. Large documents can be either a single file or a collection of files assembled into a single document.

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 *Edit > Navigator*. The elements listed in the Navigator vary according to the document loaded in Writer.

Figure 3.3 *Navigator Tool in Writer*



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

Using a Master Document to Create a Single Document from Multiple Files

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 people are working on a document. You can separate each person's portion 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 other people's work.

NOTE

If you are coming to OpenOffice.org from Microsoft Word, you might be nervous about using master documents because the master document feature in Word has a reputation for corrupting documents. This problem does not exist in OpenOffice.org Writer, so you can safely use master documents to manage your projects.

To create a master document:

1 Click *New > Master Document*.

or

Open an existing document and click *File > Send > Create Master Document*.

2 Insert subdocuments.

3 Click *File Save*.

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

TIP

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.

3.2.6 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.

Creating an HTML Document

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

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

NOTE

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.

3.3 Using Spreadsheets with Calc

Calc is the OpenOffice.org spreadsheet application. Create a new spreadsheet with *File > New > Spreadsheet* or open one with *File > Open*. Calc can read and save in Microsoft Excel's format, so it is easy to exchange spreadsheets with Excel users.

NOTE

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.

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

3.3.1 Using Formatting and Styles in Calc

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

Creating a Style

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

Modifying a Style

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

3.3.2 Using Templates in Calc

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

A detailed explanation of templates is beyond the scope of this section. However, more information is found in the help system and detailed how-tos are found at the OpenOffice.org Documentation page, see http://documentation.openoffice.org/HOW_TO/index.html.

Creating a Template

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

To create a template:

- 1 Click *File > New > Spreadsheet*.
- 2 Create the styles and content that you want to use in any spreadsheet that uses this template.

- 3 Click *File > Templates > Save*.
- 4 Specify a name for the template.
- 5 In the *Categories* box, click the category you want to place the template in.

The category is the folder where the template is stored.
- 6 Click *OK*.

3.4 Using Presentations with Impress

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

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

3.4.1 Creating a Presentation

- 1 Click *File > New > Presentation*.
- 2 Select the option to use for creating the presentation.

There are two ways to create a presentation:

- Create an empty presentation

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

- Create a presentation from a template

Opens Impress with your choice of template. Use this option to create a new presentation with a predesigned OpenOffice.org template or a template you've created or installed yourself, such as your company's presentation template.

Impress uses styles and templates the same way other OpenOffice.org modules do. See [Section 3.2.4, “Using Templates to Format Documents”](#) (page 123) for more information about templates.

3.4.2 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.

Creating a Slide Master

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

- 1 Start Impress, then create a new empty presentation.

- 2 Click *View > Master > Slide Master*.

This opens the current slide master in *Master View*.

- 3 Right-click the left-hand panel, then click *New Master*.

- 4 Edit the slide master until it has the desired look.

- 5 Click *Close Master View* or *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.

Applying a Slide Master

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

- 1 Open your presentation, then click *View > Master > Slide Master*.
- 2 (Optional) If you want to apply the slide master to multiple slides, but not to all slides, select the slides that you want to use that slide master.

To select multiple slides, press **Ctrl** in the *Slides Pane* while clicking on the slides you want to use.

- 3 In the Task Pane, right-click the master page you want to apply.

If you do not see the *Task Pane*, click *View > Task Pane*.

- 4 Apply the slide master by clicking one of the following:

- *Apply to All Slides*

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

- *Apply to Selected Slides*

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

3.5 Using Databases with Base

OpenOffice.org 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 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 3.8, “Finding Help and Information About OpenOffice.org”](#) (page 137).

3.5.1 Creating a Database Using Predefined Options

Base comes with several predefined database fields to help you create a 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:

Creating the Database

First, create the database.

- 1 Click *File > New > Database*.
- 2 Select *Create a new database > Next*.
- 3 Click *Yes, register the database for me* to make your database information available to other OpenOffice.org modules, select both check boxes in the bottom half of the dialog, then click *Finish*.

- 4 Browse to the directory where you want to save the database, specify a name for the database, then click *OK*.

Setting Up the Database Table

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 → 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.

The fields appear in the table and forms in the order in which they are listed.

- 6 Click *Next*.

- 7 Make sure each of the fields is defined correctly.

You can change the field name, type, whether the entry is required, and the maximum length of the field (the number of characters that can be entered in that field). For this example, leave the settings as they are.

- 8 Click *Next*.

- 9 Click *Create a primary key*, click *Automatically add a primary key*, click *Auto value*, then click *Next*.
- 10 Accept the default name for the table, select *Create a form based on this table*, then click *Finish*.

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* twice.
- 2 Select how you want to arrange your form, then click *Next*.
- 3 Select the option to use the form to display all data and leave all of the check boxes empty, then click *Next*.
- 4 Apply a style and field border, then click *Next*.

For this example, accept the default selections.

- 5 Name the form, select the *Modify the form* option, then click *Finish*.

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.

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 OpenOffice.org online help and other sources listed in [Section 3.8, “Finding Help and Information About OpenOffice.org”](#) (page 137) for additional information about Base.

3.6 Creating Graphics with Draw

Use OpenOffice.org 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 OpenOffice.org modules. You can also create Flash versions of your drawings.

The OpenOffice.org documentation contains complete instructions on using Draw. See [Section 3.8, “Finding Help and Information About OpenOffice.org”](#) (page 137) for more information.

To use a Draw graphic in a document:

- 1 Open Draw, then create the graphic.
- 2 Save the graphic.
- 3 Copy the graphic and paste it into the document, or insert the graphic directly from the document.

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

- 1 From an OpenOffice.org module (for example, from Writer), click *Insert > Object > OLE Object > OpenOffice.org 2.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.

3.7 Creating Mathematical Formulas with Math

It is usually difficult to include complex mathematical formulas in your documents. The OpenOffice.org Math equation editor lets you create formulas using operators, functions, and formatting assistants. You can then save those formulas as objects that can be imported into other documents. Math functions can be inserted into other OpenOffice.org documents like any other graphic object.

NOTE

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

3.8 Finding Help and Information About OpenOffice.org

OpenOffice.org contains extensive online help. In addition, a large community of users and developers support it. As a result, it is seldom hard to find help or information about using the OpenOffice.org. The following table shows some of the places where you can go for additional information. (Because Web sites often close or their content changes, the information in the following table might not be current when you read it.)

OpenOffice.org online help menu

Extensive help on performing any task in OpenOffice.org

Official OpenOffice.org support page (<http://support.openoffice.org/index.html>)

Manuals, tutorials, user and developer forums, users@openoffice.org mailing list, FAQs, and much more

OpenOffice.org Migration Guide (<http://documentation.openoffice.org/manuals/oooauthors2/0600MG-MigrationGuide.pdf>)

Information about migrating to OpenOffice.org from other office suites, including Microsoft Office

Taming OpenOffice.org (<http://www.taming-openoffice-org.com/>)

Books, news, tips and tricks

OpenOffice.org Macros (<http://www.pitonyak.org/oo.php>)

Extensive information about creating and using macros

Evolution: E-Mail 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 represents part of the Internet-connected desktop.

Evolution can help you work in a group by handling e-mail, address, and other contact information, and one or more calendars. It can do so 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 quickly. 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 using it. For complete information, refer to the Evolution documentation.

4.1 Starting Evolution for the First Time

Start the Evolution client by clicking *Computer > Evolution*, or by typing `evolution` in a terminal window.

4.1.1 Using the Setup Assistant

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

Using the Setup Assistant takes just a few minutes and helps you to provide the information Evolution needs to get started.

Later on, if you want to change this account, or if you want to create a new one, click *Edit > Preferences*, then click *Mail Accounts*. Select the account you want to change, then click *Edit*. Alternately, add a new account by clicking *Add*.

Defining Your Identity

The Identity window is the first step in the assistant.

Here, you enter some basic personal information. You can define multiple identities later by clicking *Edit > Preferences*, then clicking *Mail Accounts*.

When the First-Run Assistant starts, the Welcome page is displayed. Click *Forward* to proceed to the Identity window.

- 1 Type your full name and e-mail address in the corresponding fields.
- 2 If you want to use the new account as your default one, check *Make this my default account*.
- 3 If you want replies to your e-mails sent to a different address, set a reply to address in the *Reply-To* field.
- 4 Optionally, in the *Organization* field you can set the company where you work, or the organization you represent when you send e-mail.
- 5 Click *Forward*.

Receiving Mail

The *Receiving E-mail* option lets you determine where you get your e-mail from.

You need to specify the type of server you want to receive mail with. If you are unsure about the type of server to choose, ask your system administrator or ISP.

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

The following represents a list of server types that are available:

Novell GroupWise

Select this option if you connect to Novell GroupWise®. Novell GroupWise keeps e-mail, calendar, and contact information on the server.

Microsoft Exchange

Available only if you have installed the Connector for Microsoft* Exchange (package `evolution-exchange`). It allows you to connect to a Microsoft Exchange 2000 or 2003 server, which stores e-mail, calendar, and contact information on the server.

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

Choose this option if you want to move e-mail from the spool (the location where mail waits for delivery) 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 e-mail in your system's spool files, choose the Standard Unix Mbox Spool option instead.

MH Format Mail Directories

If you download your e-mail using `mh` or another MH-style program, you should use this option. 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 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

Select this if you do not plan to check e-mail with this account. If you select this, there are no configuration options.

Remote Configuration Options

If you selected Novell GroupWise, IMAP, POP, or USENET News as your server, you need to specify the following additional information.

- 1 Type the hostname of your e-mail server in the *Server* field. If you do not know the hostname, contact your administrator.
- 2 Type your username for the account in the *Username* field.
- 3 In the *Security* part of the dialog, select whether to use a secure (TLS or SSL) connection.

If your server supports secure connections, you should enable this security option. If you are unsure if your server supports a secure connection, contact your system administrator.

- 4 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.

If you are unsure what authentication type you need, contact your system administrator.

- 5 If you want Evolution to remember your password, check *Remember Password*.

6 Click *Forward*.

If you chose Microsoft Exchange, you need to provide the following information:

- 1 Provide your username in the *Username* field and your Outlook Web Access (OWA) URL in the *OWA URL* field. OWA URL and user names should be entered as in OWA. If the mail box path is different from the username, the OWA path should include the mail box path also. You should see something similar to this:
`http://server name/exchange/mail box path.`

2 Click *Forward*.

When you have finished, continue with **Section “Receiving Mail Options”** (page 143).

Local Configuration Options

If you selected *Local Delivery*, *MH-Format Mail Directories*, *Maildir-Format Mail Directories*, or *Standard Unix Mbox Spool or Directory*, you must specify the path to the local files in the path field. Continue with **Section “Receiving Mail Options”** (page 143).

Receiving Mail Options

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

Novell GroupWise Receiving Options

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

- 1 Select whether 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 whether you want to check for new messages in all folders.
- 3 Select whether you want to apply filters to new messages in the Inbox on the server.

- 4 Select whether you want to check new messages for spam content.
- 5 Select whether you want to only check for spam messages in the Inbox folder.
- 6 Select whether you want to automatically synchronize remote mail locally.
- 7 Type your Post Office Agent SOAP port in the *Post Office Agent SOAP Port* field. If you are unsure what your Post Office Agent SOAP port is, contact your system administrator.
- 8 Click *Forward*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148).

Microsoft Exchange Receiving Options

If you select Microsoft Exchange as your receiving server type, you need to specify the following options.

- 1 Choose whether 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 Specify the Global Catalog server name in the *Global Catalog Server Name* field. The Global Catalog Server contains the user information for users. If you are unsure what your Global Catalog server name is, contact your system administrator.
- 3 Select whether you want to limit the number of Global Address Lists (GAL).

The GAL contains a list of all e-mail addresses. If you select this option, you need to specify the maximum number of responses.
- 4 Choose whether you want the password expire warning period.

If you select this option, you need to specify how often Evolution should send the password expire message.
- 5 Select whether you want to automatically synchronize remote mail locally.

- 6 Select whether you want to apply filters to new messages in the Inbox on the server.
- 7 Select whether you want to check new messages for spam content.
- 8 Select whether you want to only check for spam messages in the Inbox folder.
- 9 Click *Forward*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148).

IMAP Receiving Options

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

- 1 Evolution is able to automatically check for new mail. If you select this option, you need to specify how often Evolution should check for new messages.
- 2 Choose whether 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.

- 3 Select whether you want Evolution to show only subscribed folders.

Subscribed folders are folders that you have chosen to receive mail from by subscribing to them.

- 4 If you want Evolution to override server-supplied folder namespaces, choose the respective option.

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.

- 5 Specify whether you want to apply filters to new messages in the Inbox.
- 6 Decide if you want to check new messages for spam content.
- 7 Choose whether you want to check for spam messages in the Inbox folder.

- 8 Specify whether you want to automatically synchronize remote mail locally.
- 9 Click *Forward*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148).

POP Receiving Options

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

- 1 Choose whether 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 Specify whether you want to leave messages on the server.
- 3 Decide whether you want to disable support for all POP3 extensions (support for POP3).
- 4 Click *Forward*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148).

USENET News Receiving Options

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

- 1 Select whether 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 Choose whether 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*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148).

Local Delivery Receiving Options

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

- 1** Select whether 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*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148).

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 whether 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** Choose if you want to use the `.folders` summary file.
- 3** Click *Forward*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148).

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 whether 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 Choose if you want to apply filters to new messages in the Inbox.
- 3 Click *Forward*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148).

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 Specify whether you want to apply filters to new messages in the Inbox.
- 3 Choose whether you want to store status headers in Elm, Pine, and Mutt formats.
- 4 Click *Forward*.

When you have finished, continue with [Section “Sending Mail”](#) (page 148)[Section “Sending Mail”](#) (page 148).

Sending Mail

Now that you have entered information about how you plan to get mail, you need to determine 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 its configuration is not easy. Please, select this option only if you know how to set up a Sendmail service.

SMTP

Sends mail using an outbound mail server. This is the most common choice for sending mail. If you select SMTP, there are additional configuration options.

SMTP Configuration

- 1** Type the address of the SMTP server in the *Server* field. If you are unsure what your SMTP server address is, contact your system administrator.
- 2** In the *Security* part of the dialog, select if you use a secure connection (TSL or SSL).
- 3** If the SMTP server requires authentication, check *Server requires authentication*. If you selected that your server requires authentication, you also need to provide the following information:

3a 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.

3b Type your username in the *Username* field.

3c Select if you want Evolution to remember your password.

- 4** Click *Forward*.

Continue with [Section “Account Management”](#) (page 150).

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*.

Continue with [Section “Time Zone”](#) (page 150).

Time Zone

In this step, you need to select your time zone either by clicking your location on the map or selecting from the time zone drop-down list.

When you have finished, click *Forward*, then click *Apply*. Evolution opens with your new account created.

If you want to import e-mail from another e-mail client, continue with [Section “Importing Mail \(Optional\)”](#) (page 150). If not, skip to [Section 4.2, “Using Evolution: An Overview”](#) (page 151).

Importing Mail (Optional)

If Evolution finds e-mail or address files from another application, it offers to import them.

Microsoft Outlook* and versions of Outlook Express after version 4, use proprietary formats that Evolution cannot read or import. To import information, you might want to use the Export tool under Windows*.

Before importing e-mail from Netscape*, make sure you have selected *File > Compact All Folders*. If you do not, Evolution will import and undelete the messages in your Trash folders.

NOTE

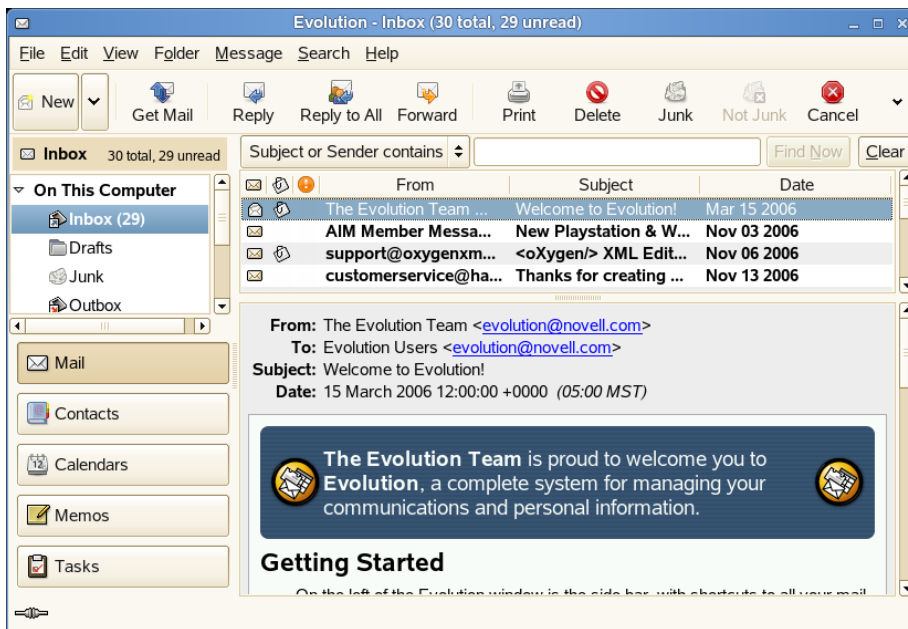
Evolution uses standard file types for e-mail and calendar information, so you can copy those files from your `~/ .evolution` directory. The file formats used are `mbox` for e-mail and `iCal` for calendar information.

Contact files are stored in a database, but can be saved as a standard vCard*. To export contact data, open your contacts tool and select the contacts you want to export (press Ctrl+A to select them all). Click *File > Save as VCard*.

4.2 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 4.1 *Evolution Window*



Menu Bar

The menu bar gives you access to nearly all 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 and 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 your e-mail, contacts, calendar, and tasks to easily find what you are looking for.

Message List

The message list displays a list of e-mail that you have received. To view an e-mail in the preview pane, click the e-mail in the e-mail list.

Shortcut Buttons

The shortcut bar lets you switch between folders and between Evolution tools. At the bottom of the shortcut bar there are 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.

Status Bar

The status bar periodically displays a message, or tells you the progress of a task. This most often happens when you're 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-mail that is selected in the e-mail list.

4.2.1 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

Holds 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

Holds actions that can be performed on folders. You can find things like copy, rename, delete, and so on.

Message

Holds 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 for phrases within a message. You can also see previous searches you have made. In addition to the Search menu, there is a text entry 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.

4.2.2 The Shortcut Bar

Evolution's most important job is to give you access to your mails, calendar, tasks and contact 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 current 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 more folders than just your Inbox. You can create multiple calendar, task, or contacts folders.

To create a new folder:

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

Folder Management

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

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.

Mark Messages As Read

Marks all the messages in the folder as read.

New Folder

Creates another folder in the same location.

Delete

Deletes the folder and all its contents.

Rename

Lets you change the name of the folder.

Disable

Disables the account.

Properties

Provides information about the number of total and unread messages in a folder. If you want to copy a remote folder to your local system for offline operation, check *Index message body data*.

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

If an e-mail folder contains unread messages, the folder label is displayed in bold text, along with the number of unread messages in the folder.

4.2.3 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 has some important differences from other e-mail programs. First, it is built to handle very large amounts of e-mail. The spam e-mail, message filtering and searching functions were built for speed and efficiency. There's 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'll find this feature especially useful. Here's a quick explanation of what's happening in your main Evolution e-mail window.

The Evolution e-mail window has two main parts, the message list and the preview pane. 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. In the preview pane, the contents of the e-mail selected from the list 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 spam mail.

Most of the e-mail-related actions you want to perform are listed in the Actions menu in the menu bar. The most frequently used ones, like *Reply* and *Forward*, also appear as buttons in the toolbar. Most of them are also located in the right-click menu and as keyboard shortcuts.

4.2.4 The Calendar

To begin using the calendar, click *Calendar* in the shortcut bar. By default, the calendar shows today's schedule with meetings, appointments and events. Tasks are shown in the task list on the right. You can choose a different view (week, work week, month) by clicking at appropriate icon in the toolbar.

To display a particular date in the main window, select that date in the small month calendar pane in the left. You can also display several days or weeks by clicking and dragging over them.

To display next or previous months in the month calendar pane, left-click the arrows in the pane header. To display any other month, right click the header and choose a year and a month from the menu.

To set a new appointment, task, meeting or event, right click in the main calendar window and choose an appropriate item from the menu and enter appropriate information in the dialog that opens.

4.2.5 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 on 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.

GroupWise Linux Client: E-Mailing and Calendaring

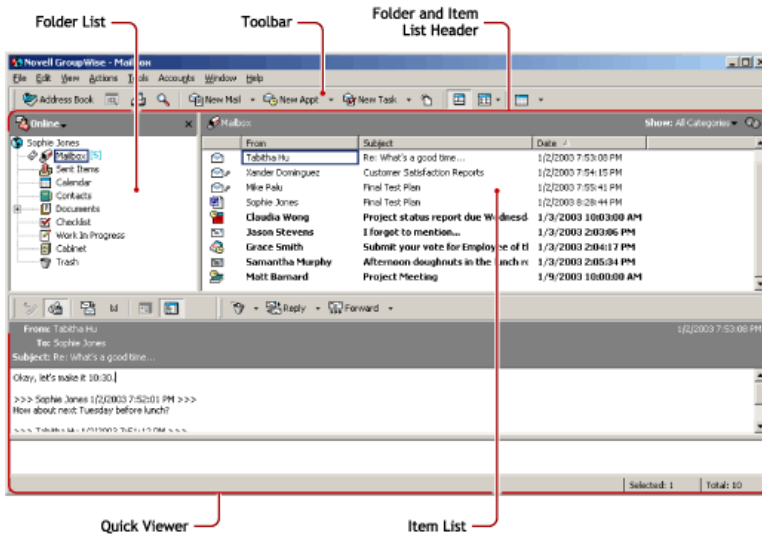
5

GroupWise® is a robust, dependable messaging and collaboration system that connects you to your universal mailbox anytime and anywhere. This section gives you an introductory overview of the GroupWise client to help you start using the GroupWise cross-platform client quickly and easily.

5.1 Getting Acquainted with the Main GroupWise Window

Your main work area in GroupWise is called the main window. From the main window of GroupWise, you can read your messages, schedule appointments, view your calendar, manage contacts, change the mode of GroupWise you are running in, open folders, open documents, and much more.

Figure 5.1 *GroupWise Main Window*



You can open more than one main window in GroupWise by clicking *Window* and then *New Main Window*. This is useful if you proxy for another user. You can look at your own main window and the main window belonging to the person you want to proxy for. You might also want to open a certain folder in one window, and look at your calendar in another. You can open as many main windows as your computer's memory allows.

The basic components of the main window are explained below.

5.1.1 Toolbar

The toolbar lets you quickly accomplish common GroupWise tasks, such as opening the address book, sending mail messages, and finding an item. For information about the toolbar, see [Section 5.4, "Using the Toolbar"](#) (page 170).

5.1.2 Folder and Item List Header

The folder and item list header provides a drop-down list where you can select the mode of GroupWise you want to run (Online or Caching), select to open your archived or backup mailbox, and select a proxy mailbox.

5.1.3 Folder List

The folder list at the left of the main window lets you organize your GroupWise items. You can create new folders to store your items in. Next to any folder (except for shared folders), the number of unread items is shown in square brackets. Next to the sent items folder, the number in square brackets shows how many items are pending to be sent from Caching mode.

Here is what you'll find in each of the default folders:

- [Section “User Folder”](#) (page 161)
- [Section “Mailbox Folder”](#) (page 162)
- [Section “Sent Items Folder”](#) (page 162)
- [Section “Calendar Folder”](#) (page 162)
- [Section “Contacts Folder”](#) (page 163)
- [Section “Checklist Folder”](#) (page 163)
- [Section “Documents Folder”](#) (page 164)
- [Section “Trash Folder”](#) (page 165)
- [Section “Shared Folders”](#) (page 165)

User Folder

Your user folder (indicated by your name) represents your GroupWise database. All folders in your Main Window are subfolders of your user folder.

Mailbox Folder

The Mailbox displays all the items you have received, with the exception of scheduled items (appointments, tasks, and reminder notes) you have accepted or declined. Accepted scheduled items are moved to the Calendar.

Sent Items Folder


The *Sent Items* folder displays all sent items from the Mailbox and Calendar. The *Sent Items* folder in versions prior to GroupWise 6.5 was a query folder, which had some differences from the current *Sent Items* folder.

The following is a comparison between the previous *Sent Items Query* folder and the current *Sent Items* folder.

Table 5.1 *Comparison Between Sent Items Query Folder and Sent Items Folder*

Sent Items Folder (Current)	Sent Items Query Folder (Previous)
All sent items reside in this folder unless they are moved to a folder other than the Mailbox or Calendar. If a sent item is moved to another folder, it no longer displays in the Sent Items folder.	No items actually reside in this folder. This folder is a Find Results folder, which means a Find is performed when you click the folder and the results of the Find (all sent items) are displayed in the folder. If you delete an item from this folder, the original item remains in its original folder and redisplayes the next time you open this folder.
You can resend, reschedule, and retract sent items from this folder.	You can resend, reschedule, and retract sent items from this folder.

Calendar Folder

The Calendar folder  shows several calendar view options.

Contacts Folder

The Contacts folder, by default, represents the Frequent Contacts address book in the Address Book. Any modification you make in the Contacts Folder is also made in the Frequent Contacts address book.

From this folder, you can view, create and modify contacts, resources, organizations and groups.

Your proxies never see your Contacts folder.

Checklist Folder

Use the Checklist folder to create a task list. You can move any items (mail messages, phone messages, reminder notes, tasks, or appointments) to this folder and arrange them in the order you want. Each item is marked with a check box so that you can check items off as you complete them.

The following is a comparison between the Checklist folder and the Task List query folder (found in previous versions of GroupWise).

Table 5.2 *Comparison Between Checklist Folder and Task List Folder*

Checklist Folder	Task List Folder
<p>This folder contains the following items:</p> <ul style="list-style-type: none">• Items you have moved to this folder• Items you have posted to this folder• Items that are part of a checklist that you have created in another folder	<p>No items actually reside in this folder. This folder is a Find Results folder, which means a Find is performed when you click the folder and the results of the Find (all scheduled tasks) are displayed in the folder. If you delete an item from this folder, the original item remains in its original folder and redisplayes the next time you open this folder.</p>

Checklist Folder	Task List Folder
Any item type can reside in this folder.	Only tasks show in this folder. Tasks are scheduled items that are associated with a due date.
To mark an item completed, click the check box next to the item in the Item List.	To mark an item completed, open the item, then click Completed.
	Due dates are set by the person who sent you the task. If you post a task for yourself, you can set a due date.
	To set the priority of an item, open the item, then type a priority in the Priority field.
Checklist items do not display in the Task List of the Calendar.	Tasks display in the Task List of the Calendar and can be marked Completed from the Calendar.
	Tasks that are past due show as red in the Calendar.

Documents Folder

Your document references are organized in the Documents folder so you can locate them easily.

The Documents folder can contain only documents. If any other type of item is moved to this folder by a GroupWise client older than version 5.5, the item is deleted.

Cabinet Folder

The Cabinet contains all your personal folders. You can rearrange and nest folders by clicking *Edit > Folders*. You can change how the folders are sorted by right-clicking the *Cabinet* folder, clicking *Properties*, then selecting what you want to sort by.

Junk Mail Folder

All e-mail items from addresses and Internet domains that are junked through Junk Mail Handling are placed in the Junk Mail folder. This folder is not created in the folder list unless a Junk Mail option is enabled.

While Junk Mail options are enabled, this folder cannot be deleted. However, the folder can be renamed or moved to a different location in the folder list. If all Junk Mail options are disabled, the folder can be deleted. The folder can also be deleted if the Junk Mail Handling feature is disabled by the system administrator.

To delete items from the Junk Mail Folder, right-click the folder, click *Empty Junk Mail Folder*, then click Yes.

Trash Folder

All deleted mail and phone messages, appointments, tasks, documents, and reminder notes are stored in the Trash folder. Items in the Trash can be viewed, opened, or returned to your Mailbox before the Trash is emptied. (Emptying the Trash removes items in the Trash from the system.)

You can empty your entire Trash, or empty only selected items. Items in the Trash are automatically emptied according to the number days entered in the Cleanup tab in Environment Options, or you can empty the Trash manually. The system administrator might specify that your Trash is emptied automatically on a regular basis.

Shared Folders

A shared folder is like any other folder in your Cabinet, except other people have access to it. You can create shared folders or share existing personal folders in your Cabinet. You choose whom to share the folder with, and what rights to grant each user. Then, users can post messages to the shared folder, drag existing items into the folder, and create discussion threads. You can't share system folders, which include the Cabinet, Trash, and Work In Progress folders.

5.1.4 Item List

The Item List on the right side of the Main Window displays your mail and phone messages, appointments, reminder notes, tasks, and document references. You can sort the Item List by clicking a column heading. To reverse the sort order, click the column heading a second time. For information about the icons used with different items, see [Section 5.3.2, “Icons Appearing Next to Items in Your Mailbox and Calendar”](#) (page 168).

5.1.5 QuickViewer

The QuickViewer opens below the Folder and Item List. You can quickly scan items and their attachments in the QuickViewer rather than open each item in another window.

5.2 Using Different GroupWise Modes

GroupWise provides two different ways to run the GroupWise client: Online mode and Caching mode.

You might be able to run GroupWise in either mode, or your system administrator might require that you use only a certain mode.

Most GroupWise features are available in all both GroupWise modes, with some exceptions. Subscribing to other users' notifications is not available in Caching mode.

5.2.1 Online Mode

When you use Online mode, you are connected to your post office on the network. Your mailbox displays the messages and information stored in your network mailbox (also called your Online Mailbox). Online mode is connected to your network mailbox continuously. In Online mode, if your Post Office Agent shuts down or you lose your network connection, you temporarily lose your connection to your mailbox.

You should use this mode if you do not have a lot of network traffic, or if you use several different workstations and do not want to download a local mailbox to each one.

5.2.2 Caching Mode

Caching mode stores a copy of your network mailbox, including your messages and other information, on your local drive. This allows you to use GroupWise whether or not your network or Post Office Agent is available. Because you are not connected to the network all the time, this mode cuts down on network traffic and has the best performance. A connection is made automatically to retrieve and send new messages. All updates are performed in the background so your work is not interrupted.

To use Caching mode, the client installation must be a standard installation, not a workstation installation.

You should use this mode if you have enough disk space on your local drive to store your mailbox.

Several users can set up their Caching Mailboxes on a single shared computer.

5.3 Understanding Your Mailbox

All of your items, whether you send or receive them, are stored in your GroupWise Mailbox. You can quickly display only received items, sent items, posted items, or draft items by clicking a setting on the Display drop-down list. You can further restrict which items display in your Mailbox by using filters.

You can organize your messages by moving them into folders within your Cabinet, and you can create new folders as necessary.

5.3.1 Bolded Items in Your Mailbox









All unopened items in your Mailbox are bolded to help you easily identify which items and documents you have not yet read. The icon appearing next to an item also indicates if it is unopened.



















Sent items are also bolded to show when they are queued but not uploaded, status information has not been received about the item being delivered, or they have not yet been transferred to the Internet.











5.3.2 Icons Appearing Next to Items in Your Mailbox and Calendar

The icons that appear next to items in your Mailbox and Calendar show information about the items. The following table explains what each icon means.

Table 5.3 *Icon Descriptions*

Icon	Description
	<p>Next to an item you have sent in Caching mode, the  icon indicates that the item has been queued, but the queue has not been uploaded. After the item has been uploaded, this icon indicates that status information has not been received about the item being delivered to the destination post office or transferred to the Internet.</p> <p>Next to the Sent Items folder, the  icon indicates that there is at least one item that has been queued but has not been uploaded.</p>
	<p>Appears next to an item you have sent. If the item has been opened by at least one person, this icon appears until all recipients have 1) opened the mail, phone message, or reminder note; 2) accepted the appointment; or 3) completed the task.</p>
	<p>Appears next to an item you have sent. The item couldn't be delivered to the destination post office or it failed to transfer to the Internet.</p>
	<p>Appears next to an item you have sent. Next to an appointment or task, this icon indicates that at least one person has declined/deleted the item. Next to a mail message, phone message, or reminder note, this icon indicates that at least one person has deleted the item without opening it.</p>
	<p>One or more attachments are included with the item.</p>
	<p>One or more sound annotations are included with the item, or the item is a voice mail message.</p>

Icon	Description
	Draft item.
	Appears next to an item you have sent.
	Appears next to an item you have replied to.
	Appears next to an item you have forwarded.
	Appears next to an item you have delegated.
	Appears next to an item you have replied to and forwarded
	Appears next to an item you have replied to and delegated.
	Appears next to an item you have forwarded and delegated.
	Appears next to an item you have replied to, forwarded, and delegated
	Posted item.
	Specific version of a document.
	Official version of a document.
	Unopened mail message with a low, standard, or high priority.
	Opened mail message with a low, standard, or high priority.
	Unopened appointment with a low, standard, or high priority.
	Opened appointment with a low, standard, or high priority.
	Unopened task with a low, standard, or high priority.
	Opened task with a low, standard, or high priority.

Icon	Description
	Unopened reminder note with a low, standard, or high priority.
	Opened reminder note with a low, standard, or high priority.
	Unopened phone message with a low, standard, or high priority.
	Opened phone message with a low, standard, or high priority.
	The sender has requested that you reply to this item. The item can be a low, standard, or high priority.
	Appears in a Busy Search. If it appears to the left of a username or resource, you can click a scheduled time across from the username or resource on the Individual Schedules tab to display more information about the appointment in the box below. However, the user or resource owner must give you appointment Read rights in the Access List before this icon appears.
	Appears on your Calendar, indicates an alarm is set for the item.
	Appears on your Calendar, indicates the item is a group appointment, reminder note, or task.
	Appears on your Calendar, indicates the item is marked private.
	Appears on your Calendar, indicates that you declined the item but didn't delete it.

5.4 Using the Toolbar

Use the toolbar to access many of the features and options found in GroupWise. The toolbar at the top of a folder or item is context sensitive; it changes to provide the options you need most in that location.

5.5 Using Shortcut Keys

You can use a number of shortcut keys in GroupWise for accessibility or to save time when you perform various operations. The table below lists some of these keystrokes, what they do, and the context where they work.

Table 5.4 *Shortcut Keys*

Keystroke	Action	Where It Works
F1	Open online help	Main Window, Calendar, item, dialog box
F2	Search for text.	In an item
F5	Refresh the view	Main Window, Calendar
F7	Opens the Spell Checker	In an item
F8	Mark the selected item private	Item List
F9	Open the font dialog box	In an item
Ctrl+A	Select all items; select all text	Item List; text
Ctrl+B	Bold text	In text
Ctrl+C	Copy selected text	In text
Ctrl+F	Open the Find dialog box	Main Window, Calendar, item, dialog box
Ctrl+G	Go to today's date	Calendar
Ctrl+I	Italicize text	In text
Ctrl+L	Attach a file to a message	In an item

Keystroke	Action	Where It Works
Ctrl+M	Open a new mail message	Main Window, Calendar, item, dialog box
Ctrl+O	Open the selected message	Item List
Ctrl+P	Open the Print dialog box	Main Window, item
Ctrl+Q	Turn the QuickViewer on and off	Main Window, Calendar
Ctrl+R	Mark the selected item unread	Item List
Ctrl+S	Save a draft in the Work in Progress folder	In an item
Ctrl+U	Underline text	In text
Ctrl+V	Paste selected text	In text
Ctrl+X	Cut selected text	In text
Ctrl+Z	Undo the last action	In text
Ctrl+Up-arrow	Opens the previous or next item	In an item
or		
Ctrl+Down-arrow		
Ctrl+Shift+Left-arrow	Select text one word at a time	In text
or		
Ctrl+Shift+Right-arrow		
Ctrl+Shift+A	Open a new appointment	Main Window, Calendar, item, dialog box

Keystroke	Action	Where It Works
Ctrl+Shift+T	Open a new task	Main Window, Calendar, item, dialog box
Ctrl+Shift+R	Open a new reminder note	Main Window, Calendar, item, dialog box
Ctrl+Shift+P	Open a new phone message	Main Window, Calendar, item, dialog box
Alt+F4	From the Main Window or Calendar, exit GroupWise. From an item, exit the item. From a dialog box, exit the dialog box.	Main Window, Calendar, item, dialog box
Alt + [letter]	Activate the menu bar (Use the underlined letters in the menu names)	Main Window, Calendar, item
Alt+D	Send item	In a new item
Alt+S	Send item	In a new item
Alt+Enter	Display the properties of the selected item	Item List
Alt+Del	Delete an item	In an item
Shift+Left-arrow or Shift+Right-arrow	Select text one character at a time	In text
Shift+End	Select text to the end or beginning of a line	In text

Keystroke	Action	Where It Works
or		
Shift+Home		
Shift + [letter]	In the Folder List, Shift + the first letter of a subfolder name goes to the subfolder.	Folder list
Tab	Cycle through fields, buttons, and areas	Main Window, Calendar, dialog box, item
Shift+Tab	Reverse the order of cycling through fields, buttons, and areas	Main Window, Calendar, dialog box, item
Ctrl+Tab	In text, indent the text. In a tabbed dialog box, open the next tab.	In text, dialog box
Alt+Up Arrow	Zooms in the message body of an item.	In an item
Alt+Down Arrow	Zooms out the message body of an item.	In an item

5.6 For More Information

You can learn more about GroupWise from the following resources.

5.6.1 Online Help

Complete user documentation is available in Help. In the Main Window, click *Help > Help Topics*, then use the Contents tab, Index tab, or Search tab to locate the help topics you want.

5.6.2 GroupWise 7 Documentation Web Page

For the latest version of the GroupWise user guide and for extensive GroupWise administration documentation, go to the GroupWise 7 area on the Novell Documentation Web site (<http://www.novell.com/documentation/gw7>).

This user guide is also available from the GroupWise client by clicking *Help > User Guide*.

5.6.3 GroupWise Cool Solutions Web Community

At GroupWise Cool Solutions, you'll find tips, tricks, feature articles, and answers to frequent questions. In the Main Window, click *Help > Cool Solutions Web Community* or go to <http://www.novell.com/cool solutions/gw mag>.

Instant Messaging with Gaim

Use Gaim to use all of your instant messaging accounts from a single instant messaging client. Gaim supports all of the most popular instant messaging protocols, so you can log in to all of your accounts at once and chat live with your contacts in one tabbed interface, regardless of which IM system they use.

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

- [Section 6.1, “Supported Protocols”](#) (page 177)
- [Section 6.2, “Setting Up an Account”](#) (page 178)
- [Section 6.3, “Managing Your Buddy List”](#) (page 179)
- [Section 6.4, “Chatting”](#) (page 180)

6.1 Supported Protocols

Gaim supports the following instant messaging protocols:

- AIM/ICQ
- Gadu-Gadu
- GroupWise

- IRC
- Jabber
- MSN
- Napster
- Yahoo
- Zephyr

6.2 Setting Up an Account

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

- 1 Start Gaim by clicking *Computer More Applications Communicate Gaim*.



- 2 Click *Accounts Add* to open the *Add Account* dialog.

The first time you run Gaim, or any subsequent times you start Gaim when you do not have any accounts set up, the *Add Account* dialog opens automatically.

- 3 Choose the protocol you want to set up.

The *Add Account* dialog differs for each protocol, depending on what setup options are available for that protocol.

4 Enter the setup options for the chosen protocol.

Typical options include your account name and password. Your protocol might support additional options, such as a buddy icon, alias, login options, or others.

5 Click *Save*.

6 Repeat Steps 2 to 5 for each additional protocol.

Once an account is added, you can log in to that account by entering your account name and password in the Gaim *Login* dialog.

6.3 Managing Your Buddy List

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.

6.3.1 Displaying Buddies in the Buddy List

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

6.3.2 Adding a Buddy

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

NOTE

For some protocols, you cannot add a buddy in the Gaim 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 Gaim Buddy List.

6.3.3 Removing a Buddy

To remove a buddy, right-click on that buddy's name in the Buddy List, then click *Remove*.

6.4 Chatting

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 it.

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

Using Voice over IP with Ekiga

Modern telecommunication means far more than just making a phone call. It is also about exchanging text messages 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 attached 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. For a list of providers, refer to <http://www.voipproviderslist.com/>. Free trials are provided by <http://www.voipbuster.com>.
- For video conferencing, a Web cam is connected to your computer.

7.1 Configuring Ekiga

On first start, Ekiga opens a configuration assistant that requests all data needed to configure your instance of Ekiga. 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 sign up with ekiga.net.

To add other accounts later, configure them using *Edit > Accounts*.
- 3** Determine your connection type.
- 4** Determine the type of firewall to use to enable you to make calls with Ekiga.
- 5** Choose the audio manager to use. Accept the default setting *ALSA*, as it guarantees the best sound quality and other sound systems, like *OSS*, are not available on SUSE Linux Enterprise.
- 6** Choose the audio input and output devices and test your settings.
- 7** Accept the video manager selection, *V4L*.
- 8** Choose the video input device and test your settings.
- 9** Check the summary of your settings and apply them.
- 10** If registration fails after you made changes to your configuration, just restart Ekiga.

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

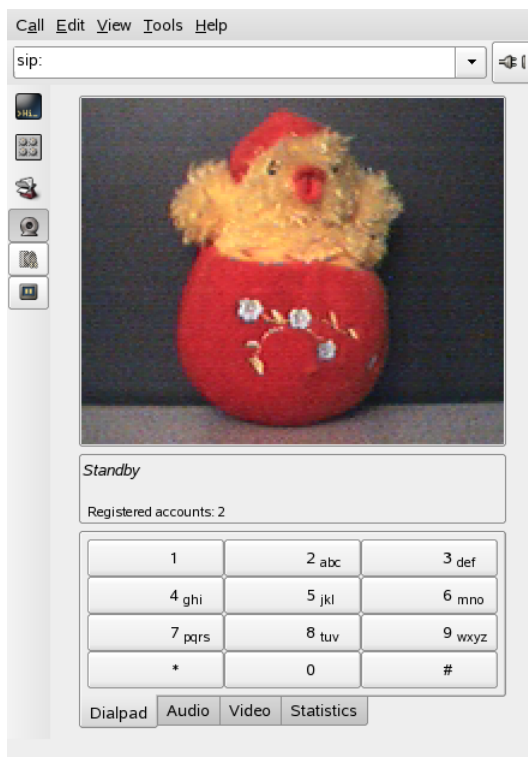
- 1** Open *Edit > Accounts* and select *Add*.
- 2** Choose an *Account Name*.
- 3** Select an appropriate *Protocol* depending on the type of account you use. Normally, you would select *SIP* here.
- 4** Enter the *Registrar* to which you want to register. This is usually an IP address or a host name that will be given to you by your Internet Telephony Service Provider. Enter *User*, and *Password* according to the data provided by your provider.

- 5 Leave the configuration dialog with *OK* and activate the account. The status of your account displayed in the Ekiga main window changes to *Registered*.

7.2 The Ekiga User Interface

All functions of Ekiga are available through the menu bar. Shortcuts to the most important functions are available in a toolbar to the left and by special key combinations.

Figure 7.1 *Ekiga User Interface*



The user interface has different modes. To switch between views, use *View > View Mode* and *View > Control Panel* or select the view mode icon on the left side of the GUI and the different tabs at the bottom. The *Full View* is shown in [Figure 7.1, “Ekiga User Interface”](#) (page 183). All icons in the toolbar provide a tool tip that is activated by the mouse pointer hovering over the icon.

At the bottom of the user interface, several tabs provide the functionality for *Dialpad*, *Audio*, *Video*, and *Statistics*. Some settings like the *Audio* settings may only be changed during a phone call.

Many of the functions of Ekiga are available with keyboard shortcuts. [Table 7.1, “Keyboard Shortcuts for Ekiga”](#) (page 184) summarizes the most important ones.

Table 7.1 *Keyboard Shortcuts for Ekiga*

Ctrl Sequence	Description
Ctrl + O	Initiate a call with the current number.
Ctrl + D	Hang up.
Ctrl + G	Hold the current call.
Ctrl + T	Transfer the current call to another party.
Ctrl + S	Save the current picture to hard disk.
Ctrl + W	Close the Ekiga user interface.
Ctrl + Q	Quit Ekiga.
Ctrl + E	Start the account manager.
Ctrl + P	Open the <i>Ekiga Preferences</i> overview. This dialog allows you to do some fine-tuning to your Ekiga settings.
Ctrl + +	Zoom in to the picture from the Web cam.
Ctrl + -	Zoom out on the picture from the Web cam.
Ctrl + =	Return to the normal size of the Web cam display.
Ctrl + F	Use full screen for the Web cam.
Ctrl + H	Display the history of your calls.

7.3 Making a Call

Once Ekiga is configured appropriately, making a call is straightforward.

- 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`

If you have a SIP provider who accepts real phone calls, you may just enter the number like `sip:<call number>`

- 3 Click *Call* or type Ctrl + O and wait for the other party to pick up the phone.
- 4 To end the call, click *Hang up* or type Ctrl + D.

If you need to tweak the sound parameters during a call, click *View > View Mode > Full View* to show four tabs holding more options. The second one holds the *Audio* options for *Playback level* and *Recording level*. Use the sliders to adjust the levels to fit your needs.

7.4 Answering a Call

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

Normal Application

Incoming calls can only be received and answered if Ekiga is already running. You 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 ring sound on your headset or speakers.

Once you have noticed an incoming call, just 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.

7.5 Using the Address Book

Ekiga offers to manage your SIP contacts. Start the address book with *Tools > Address book*. An empty list window opens. To add a contact, first select *Personal* with your mouse. Then right-click into the address window and select *New Contact*. Alternatively, just press *Ctrl > N*.

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.

SIP Address

Enter a valid SIP address for your contact.

Email

Enter the e-mail address of your contact for your own reference.

Speed Dial

With a *Speed Dial* you can access often used numbers more easily. This is optional.

Categories

If desired, add your own categories if you have many different contacts.

Local Address Book

By default, you have a local address book with the name *Personal* available. If you need more address books, create them with *File > New Address Book* or use the keyboard shortcut *Ctrl + B*.

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

7.6 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 at <http://www.voip-info.org/wiki-Asterisk>.

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® 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 8.2, “Accessing Network Shares”](#) (page 190).
- **Sharing Folders in Mixed Environments:** Using Nautilus, configure your files and folders to share with other members of your network. Make your data readable or writable for users from any Windows or Linux workstation. Learn more about this in [Section 8.3, “Sharing Folders”](#) (page 191).
- **Managing Windows Files:** SUSE Linux Enterprise 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 8.4, “Managing Windows Files”](#) (page 193).
- **Configuring and Accessing a Windows Network Printer:** You can configure a Windows network printer through the GNOME Control Center. Learn how to configure this in [Section 8.5, “Configuring and Accessing a Windows Network Printer”](#) (page 194).

8.1 General Notes on File Sharing and Network Browsing

Whether and to which 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 match with what you expected, contact your system administrator to make sure that you are connected to the appropriate subnet.

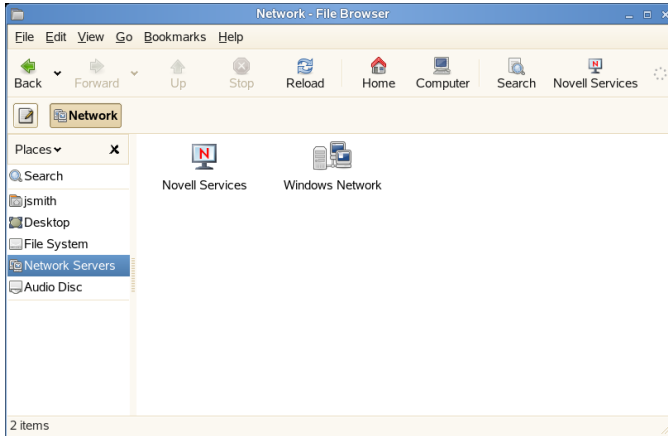
To allow network browsing, your machine needs to keep several network ports open to send and receive network messages that provide details on the network and the availability of shares and services. The standard SUSE Linux Enterprise is configured for tight security and has a firewall up and running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

8.2 Accessing Network Shares

Networking workstations can be set up to share folders. Typically, files and folders are marked to let remote users access them. 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. Whether you have only read access or also write access to the shared folders depends on the permissions granted to you by the owner of the shares.

To access network shares, open Nautilus and click *Network Servers*. Nautilus displays the networks that you can access. Click a network, then click the server. You might be required to authenticate to the server by providing a username and password.

Figure 8.1 *Network File Browser*



8.3 Sharing Folders

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

8.3.1 Enabling Sharing on the Computer

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

- 1 Click *Computer > More Applications > System > YaST*.
- 2 Enter the root password.
- 3 Click *Network Services*.

- 4 Click *Windows Domain Membership*.
- 5 Click *Allow Users to Share Their Directories*, then click *Finish*.

8.3.2 Enabling Sharing for a Folder

To configure file sharing for a folder:

- 1 Open Nautilus.
- 2 Right-click the window background or a folder, then select *Sharing Options* from the context menu.



- 3 Select *Share this folder*.
- 4 (Optional) If you want other people to be able to write to the folder, select *Allow other people to write in this folder*.
- 5 (Conditional) If the folder does not already have the permissions that are required for sharing, click *Add the permissions automatically*.

The folder icon changes to indicate that the folder 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.

8.4 Managing Windows Files

With your SUSE Linux Enterprise machine being an Active Directory client, you can browse, view, and manipulate data located on Windows servers. The following examples are just 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 folder just as you would for displaying a Linux directory. Create new files and folders 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, which 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 once you provided your username and password on login.

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

- 1 Open Nautilus and click *Network Servers*.
- 2 Click *Windows Network*.
- 3 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), then navigate to the shared folder on that computer.

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

8.5 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.

- 2 Select *Hardware > Printers*.

- 3 Select *New Printer*.

Adding a printer requires root privileges, so you must enter the root password to continue.

- 4 Select *Network Printer*, then select *Windows Printer (SMB)* from the drop-down menu.

- 5 Enter or select the Windows host, the printer, and the username and password required to access the Windows computer, then click *Forward*.

- 6 Select the driver that most closely matches the printer, then click *Forward*.

- 7 Click *Apply*.

The printer is ready for use.

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

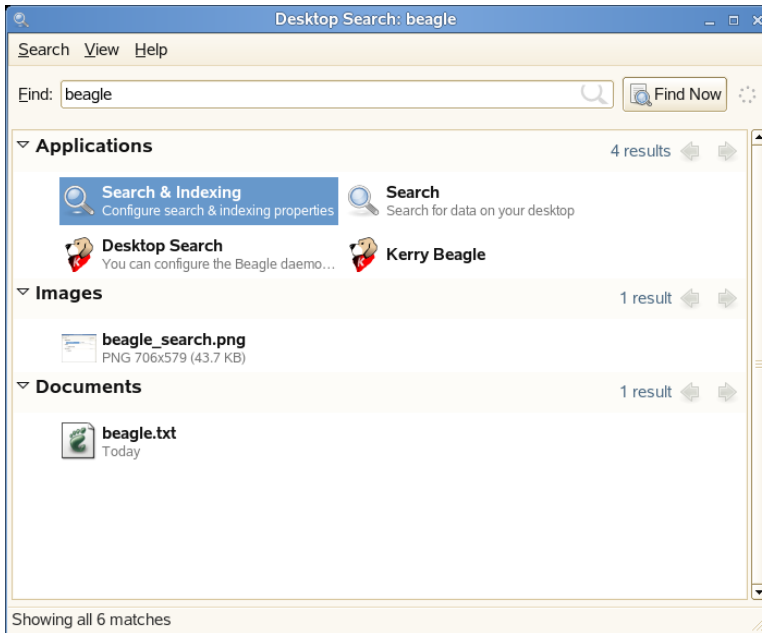
Searching with Beagle

Beagle is a search tool that indexes your personal information space (normally your home directory) to find whatever you are looking for. Using Beagle, you can find documents, e-mails and attachments, Web history, IM/IRC conversations, address book contacts, calendar appointments, notes, source code, images, music and video files, archives and their contents, and applications.

9.1 Using Beagle

To use Beagle, click *Computer*, enter your search terms in the *Search* field, then press Enter. The results are displayed in the Desktop Search dialog box.

Figure 9.1 *Desktop Search Dialog Box*



You can use the results lists to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you need. The options available for an item in the results list depend on the type of file. Selecting a file in the list displays a preview of the file and information such as the title, path, and date the file was last modified or accessed.

Use the *Search* menu to limit your search to files in a specific location, such as your address book or Web pages, or to display only a specific type of file in your results list. The *View* menu lets you sort the items in your results list according to name, relevance, or the date the file was last modified.

You can also access Desktop Search by clicking *Computer > More Applications > System > Search*.

9.2 Search Tips

- You can use both uppercase and lowercase letters in search terms. Searches are not case-sensitive by default.

To perform a case-sensitive search, put double quotation marks (“”) around the word you want to match exactly. For example, if you use “APPLE” in a search, apple will be ignored.

- To search for optional terms, use OR (for example, apples OR oranges).

IMPORTANT

The OR is case-sensitive when used to indicate optional search terms.

- To exclude search terms, use a minus sign (-) in front of the term you want to exclude. For example, apples -oranges will find results containing apples but not oranges.
- To search for an exact phrase or word, put quotation marks (“”) around the phrase or word.
- Common words such as a, the, and is are ignored.
- The base form of a search term is used when searching. For example, a search for driving will match drive, drives, and driven.

9.3 Performing a Property Search

By default, the Beagle search tool looks for search terms in the text of documents and in their metadata. To search for a word in a particular property, use *property:query*. For example, `author:john` searches for files that have john listed in the Author property.

Table 9.1 *Supported Property Keywords*

Keyword	Applies to	Property
album	Music files	Name of album
artist	Music file	Name of artist
author	Document	Author of the document (same as Creator of the Document)
creator	Document	Creator of the document, mapped to dc:creator (for example, creator of PDF files)
email	Address book	E-mail address
extension or ext	File	File extension (for example, extension:jpeg or ext:mp3). Use extension: or ext: to search in files with no extension.
genre	Music file	Genre of music
imagecomment	Image file	Comments and descriptions found in images that have an IPTC caption or Exif comment
imagemodel	JPEG image	Model of camera (for example, EOS2D)
imagetag	Image file	F-Spot and Digikam image tags, and IPTC keywords
mailfrom	E-mail	Name of sender
mailfromaddr	E-mail	E-mail address of sender
mailinglist	E-mail	Id of mailing list (for example, dashboard-hackers.gnome.org)
mailto	E-mail	Name of recipient
mailtoaddr	E-mail	E-mail address of recipient

Keyword	Applies to	Property
speakingto	Chat	Speaker
title	Document	Title of document, mapped to dc:title (for example, title tag of HTML files)

Property searches follow the rules mentioned in [Section 9.2, “Search Tips”](#) (page 197). You can use property searches as an OR query or as an exclusion query, and phrases can be used as *query*. For example, the following line will search for all PDF or HTML documents containing the word `apple` whose author property contains `john` and whose title does not contain the word `oranges`:

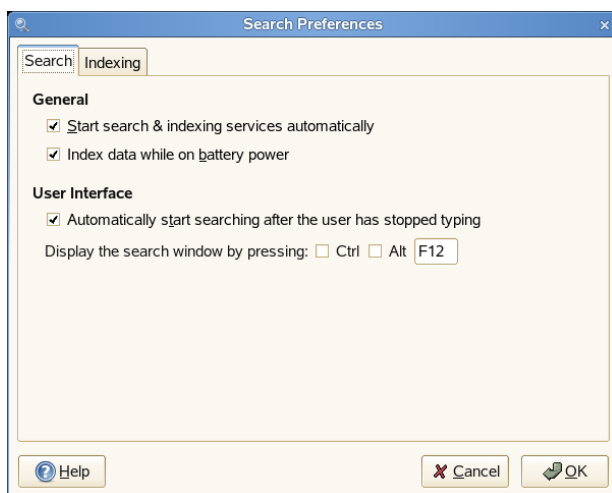
```
apple ext:pdf OR ext:html author:john -title:oranges
```

9.4 Setting Search Preferences

Use the Search Preferences dialog box to set search preferences for Beagle.

- 1 Click *Computer > More Applications > System > Search & Indexing*.

You can also click *Search > Preferences* in the Desktop Search dialog box.



2 Choose from the following options:

Start search & indexing services automatically:

Select this option if you want the search daemon to start automatically when you log in to your session (this option is selected by default). If you want to use Beagle's Search functionality, the daemon must be running.

Index data while on battery power:

Select this option if you want your data to be indexed when your computer is operating on battery power. This option is particularly useful if you are using SUSE Linux Enterprise Desktop on a laptop and you want to stop indexing when your laptop is running on battery power.

Automatically start searching after the user has stopped typing:

Select this option if you want Beagle to start searching as soon as you stop entering text in the *Find* field in the Desktop Search window. This option has no effect on the *Search* field in the main menu.

Display the search window by pressing:

Choose the keystrokes that will display the Desktop Search window by specifying any combination of Ctrl, Alt, and a function key. F12 is the default keystroke.

3 Click *OK*.

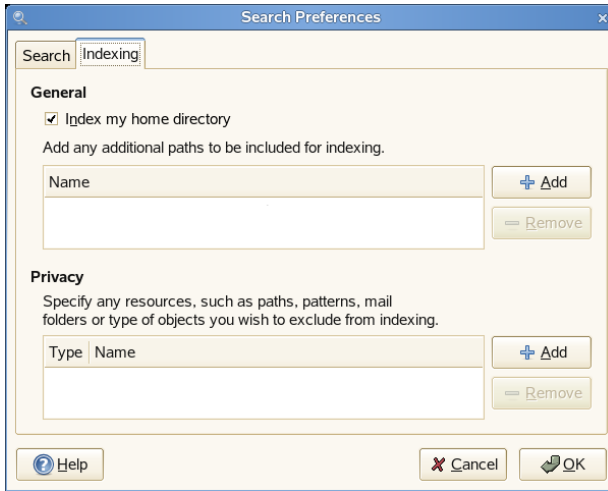
9.5 Indexing Other Directories

By default, Beagle indexes your home directory only. If you do not want your home directory to be indexed, uncheck the *Index my home directory* option on the *Indexing* tab of the Search Preferences dialog box. If you want to index additional folders, follow these steps:

1 Click *Computer > More Applications > System > Search & Indexing*.

You can also click *Search > Preferences* in the Desktop Search dialog box.

2 Click the *Indexing* tab.



- 3 Click *Add* in the *General* section of the dialog box.
- 4 Select the directory you want to index, then click *Open*.
Make sure you have rights to the directories you add.
- 5 If you want to remove a directory from the list of indexed directories, select it in the list, then click *Remove*.
- 6 Click *OK*.

9.6 Preventing Files and Directories from Being Indexed

Use the Search Preferences dialog box to specify resources that you do not want indexed. These resources can include directories, patterns, mail folders, or types of objects.

- 1 Click *Computer > More Applications > System > Search & Indexing*.
- 2 Click the *Indexing* tab.

- 3 Click *Add* in the *Privacy* section.
- 4 Select a resource to exclude from indexing, then specify the path to the resource.
- 5 Click *OK* twice.

9.7 For More Information

For more information, refer to Beagle Home Page [<http://beagle-project.org/>]

Managing Printers

SUSE Linux Enterprise 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 SLED and manage print jobs.

10.1 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 to 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 SLED. If you cannot find a driver for the printer, check the printer manufacturer's Web site.

10.1.1 Installing a Network Printer

- 1 Click *Computer > Control Center > Add Printer > New Printer*.
- 2 Enter the root password.
- 3 Click *Network Printer*, then select the type of connection for this printer.

CUPS Printer (IPP)

A printer attached to a different Linux system on the same network running CUPS or a printer configured on another operating system to use IPP.

Windows Printer (SMB)

A printer attached to a different system which is sharing a printer over a SMB network (for example, a printer attached to a Microsoft Windows machine).

UNIX Printer (LPD)

A printer attached to a different UNIX system that can be accessed over a TCP/IP network (for example, a printer attached to another Linux system on your network).

HP JetDirect

A printer connected directly to the network instead of to a computer.

- 4 Specify the printer's information, then click *Forward*.
- 5 Select the printer driver for this printer, then click *Apply*.

You can also install a printer driver from a disk, or visit the printer manufacturer's Web site to download the latest driver.

- 6 Specify desired options (such as a description or location) for the printer in the Properties dialog box, then click *Close*.

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

10.1.2 Installing a Local Printer

- 1 Connect the printer cable to your computer and connect the printer's power supply.

The printer dialog should open. If it doesn't, click *Computer > Control Center > Add Printer > New Printer* to open it.

- 2 Enter the root password.
- 3 Click *Local Printer*.
- 4 If the printer was autodetected, select the printer from the list. If the printer was not autodetected, click *Use another printer by specifying a port* and then select the correct printer port.

- 5 Click *Forward*.
- 6 Select the printer driver for this printer, then click *Apply*.

You can also install a printer driver from a disk, or visit the printer manufacturer's Web site to download the latest driver.

- 7 Specify desired options (such as a description or location) for the printer in the Properties dialog box, then click *Close*.

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

10.2 Modifying Printer Settings

- 1 Click *Computer > Control Center > Printers*.
- 2 Right-click the printer you want to modify, then click *Properties*.
- 3 Modify the properties, then click *Close*.

10.3 Canceling Print Jobs

- 1 Click *Computer > Control Center > Printer*.
- 2 Double-click the printer you sent the job to.
- 3 Right-click the print job, then click *Cancel*.

If the print job does not appear in the list, then the print job might have been printed already.

10.4 Deleting a Printer

- 1 Click *Computer > Control Center > Printer*.

- 2** Click *Edit > Become Administrator*.
- 3** Type the root password, then click *Continue*.
- 4** Right-click the printer you want to delete, then click *Remove*.

Part III. Internet

Managing Network Connections

11

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 or ifup.

For a list of criteria to help you decide whether to use NetworkManager, see Section 30.5: *Managing Network Connections with NetworkManager* and Section 25.1.2: *Integration in Changing Operating Environments* in the SUSE Linux Enterprise Desktop *Deployment Guide*.

11.1 Enabling or Disabling NetworkManager

- 1 In YaST, click *Network Devices > Network Card*.
- 2 To enable NetworkManager, select *User Controlled with NetworkManager*.
To disable NetworkManager, select *Traditional Method with ifup*.
- 3 Click *Next*.
- 4 Set up your network card using either automatic configuration via DHCP or a static IP address. For more information about network configuration with YaST,

refer to the respective section in *Basic Networking* in the SUSE Linux Enterprise Desktop *Deployment Guide*.

- 5 Click *Finish* to close the *Network Card Configuration Overview* window.

If you want to use a dial-up connection, configure your modem in *Network Devices > Modem*. To configure an internal or USB ISDN modem, select *Network Devices > ISDN*. To configure an internal or USB DSL modem, select *Network Devices > DSL*.

NOTE: Configuration of WLAN Cards

Configure supported wireless cards directly in NetworkManager.

11.2 NetworkManager and SCPM

NetworkManager cannot work together with System Configuration Profile Management (SCPM) if SCPM also manages the network configuration. If SCPM is enabled on your system and you want to use SCPM and NetworkManager at the same time, you must disable the network resource in the SCPM configuration. To disable the network resource in all your SCPM profiles:

- 1 In YaST, click *System > Profile Manager*.
- 2 Click *Configure* in the *Resource Groups* to open the *Configuration of Resource Groups*.
- 3 In the *Resource Group* list, select *network* and click *Delete*.
- 4 Click *OK*.
- 5 Click *OK* again.
- 6 To finish the configuration, click *Close*.

11.3 Using GNOME NetworkManager Applet

If you have decided to use NetworkManager, the GNOME NetworkManager applet starts automatically with the desktop environment. If the applet is not running, you can start it with the `nm-applet` command. When it is running, an icon indicating the current network status is shown in the system tray. Depending on the state of the network connection, the panel icon changes appearance. If you are not sure what the icon means, hold your mouse over the icon until an explanation appears.



A wired connection has been established.



Currently there is no connection to the Internet.



A wireless connection has been established. Blue bars indicate the strength of the signal. More blue bars means better signal strength.



The connection is being established or terminated.

11.3.1 Connecting to Wired Networks

If your computer is connected to an existing network with a network cable, use the NetworkManager applet to choose the network connection.

- 1 Left-click the applet icon to show a menu with available networks. The currently used connection is selected in the menu.
- 2 To switch to another network, choose it from the list. To connect to an 802.1X protected wired network, select the appropriate menu item and enter all required information for your type of connection.

- 3 To switch off all network connections, both wired and wireless, right-click the applet icon and uncheck *Enable Networking*.

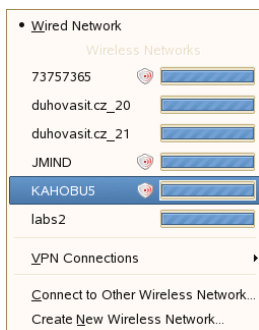
To get information about the current connection (including interface used, IP address, and hardware address), right-click the applet icon and select *Connection Information*. In this dialog, you can also configure your network devices. To do so, click *Configure Networking* to open YaST where you can define a new connection.

11.3.2 Connecting to Wireless Networks

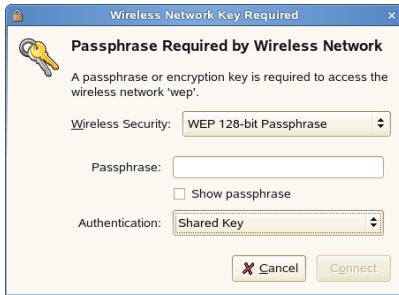
The signal strength of wireless networks is also shown in the menu. Encrypted wireless networks are marked with a shield icon.

Procedure 11.1 *Connecting to a Wireless Network*

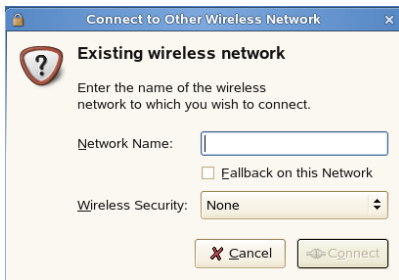
- 1 To connect to a wireless network, left-click the applet icon and choose an entry from the list of available wireless networks.



If the network is encrypted, a dialog opens.



- 2 Choose the type of *Encryption* the network uses and enter the appropriate *Passphrase* or *Key*.
- 3 To connect to a network that does not broadcast its service set identifier (ESSID) and therefore cannot be detected automatically, left-click the NetworkManager icon and choose *Connect to Other Wireless Network*.



- 4 In the dialog that opens, enter the ESSID and set encryption parameters if necessary.
- 5 To disable wireless networking, right-click the applet icon and uncheck *Enable Wireless*. This can be very useful if you are on a plane or in any other environment where wireless networking is not allowed.

11.4 NetworkManager and Security

NetworkManager distinguishes two types of wireless connections, trusted and untrusted. A trusted connection is any network that you explicitly selected in the past. All others are untrusted. Trusted connections are identified by the name and MAC address of the access point. Using the MAC address ensures that you cannot use a different access point with the name of your trusted connection.

If no wired connection is available, NetworkManager scans for available wireless networks. If multiple trusted networks are found, the most recently used is automatically selected. If all are untrusted, NetworkManager waits for your selection.

If the encryption setting changes but the name and MAC address remain the same, NetworkManager attempt to connect, but it first asks you to confirm the new encryption settings and provide any updates, such as a new key.

In a system with a wireless connection only, NetworkManager does not automatically start the connection during boot. You must log in first to establish a connection. If you want to make a wireless connection accessible without login, configure the trusted connection with YaST. Only wireless connections configured with YaST are sufficiently credible for NetworkManager to use during boot.

If you switch to offline mode after using a wireless connection, NetworkManager removes the ESSID. This ensures that the card really is unassociated.

11.4.1 Configuring Your Wireless Card as an Access Point

If your wireless card supports access point mode, you can use NetworkManager for configuration.

- 1 Click *Create New Wireless Network*.



- 2 Add the network name and set the encryption in the *Wireless Security* dialog.

IMPORTANT: Unprotected Wireless Networks Are a Security Risk

If you set *Wireless Security* to `None`, everybody can connect to your network, reuse your connectivity, and intercept your network connection. To restrict access to your access point and to secure your connection, use encryption. You can choose from various WEP and WPA-based encryptions. If you are not sure which technology is best for you, see Chapter 28: Wireless Communication, in the *SUSE Linux Enterprise Desktop Deployment Guide*.

11.4.2 Using NetworkManager with VPN

NetworkManager supports several VPN technologies. To use them, first install NetworkManager support for your VPN technology. You can select from:

- NovellVPN
- OpenVPN
- vpnc (Cisco)

VPN support is included in the `NetworkManager-novellvpn`, `NetworkManager-openvpn`, and `NetworkManager-vpns` packages.

Procedure 11.2 Configuring a VPN connection with NetworkManager

- 1 Click the NetworkManager applet and select *VPN Connections > Configure VPN*.
- 2 Click *Add*, then click *Forward* to start the *Create VPN Connection* wizard.

Create VPN Connection - 2 of 2

Please enter the information provided by your system administrator below. Do not enter your password here as you will be prompted when connecting.

Connection Name

Name used to identify the connection to the private network, e.g. "Campus VPN" or "Corporate Network"

Required Information

Gateway:

Connection Type:

X.509

CA file:

Certificate:

Key:

Optional information

Please note that the file you import is not an OpenVPN configuration file. Ask your administrator for the file.

- 3 Select the type of VPN connection you want to create, then click *Forward*.
- 4 Type a name for your configuration in the *Connection Name* field.
- 5 Specify all required information for your type of connection.

For example, for an OpenVPN connection, enter *Gateway* and choose the way to authenticate from *Connection type*. Complete the other required options depending on the connection chosen.

Alternatively, load settings from a saved configuration file by pressing *Import Saved Configuration* and choosing your saved configuration file in a standard file dialog.

- 6 Click *Forward*.

After the VPN is configured, you can select it from *VPN Connections*. To close a VPN connection, click *Disconnect VPN*.

11.4.3 GNOME Keyring Manager and Novell CASA

If you do not want to enter your credentials anew each time you want to connect to an encrypted network, you can use GNOME Keyring Manager to store your credentials encrypted on the disk, secured by a master password. Whenever any GNOME application that uses GNOME Keyring needs to access passwords or credentials stored there, a check is made if the keyring is locked or not. If it is locked, you will be prompted for the master password to unlock the keyring. For more information about GNOME Keyring Manager, refer to [Section 2.4.4, “Managing Keyrings”](#) (page 88).

Another option is to use single sign-on with Novell CASA. Single Sign-on is a method of access control that enables users to authenticate once and thus gain access to the resources of multiple software systems. If Novell CASA is configured for your system, NetworkManager will not ask for an additional password to unlock GNOME Keyring Manager. Instead, the keyring will be unlocked automatically when the users logs in to the desktop. For more information about Novell CASA, refer to [Section 2.4.5, “Using Single Sign-on with Novell CASA”](#) (page 89).

Browsing with Firefox

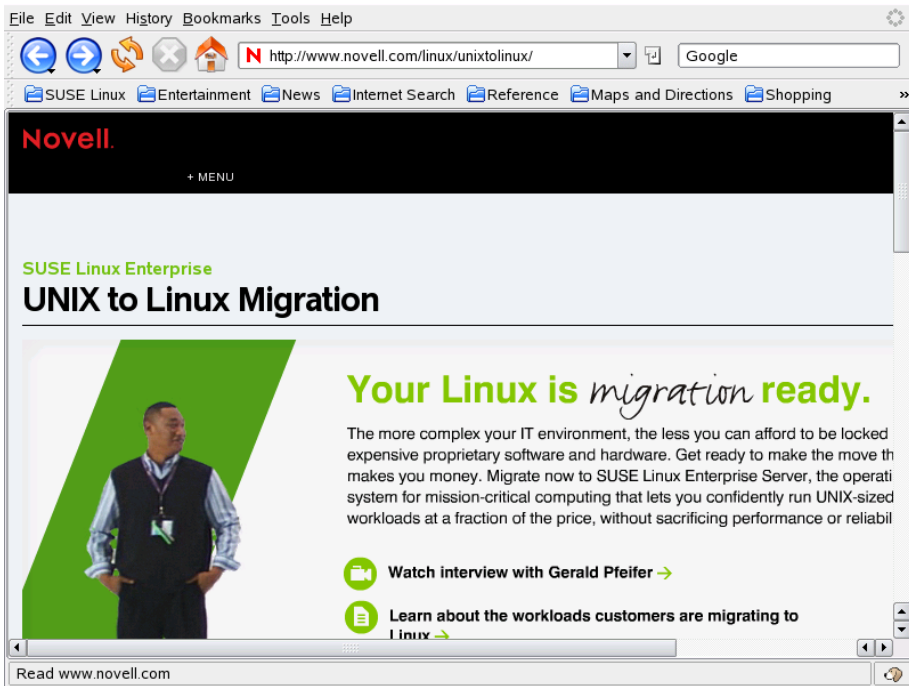
Included with your SUSE Linux Enterprise® is the Mozilla Firefox Web browser. With features like tabbed browsing, pop-up window blocking, and download and image management, Firefox combines the latest browsing and security technologies with an easy to use interface. Using tabs you can view more than 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.

12.1 Navigating Web Sites

Firefox has much the same look and feel as other browsers. It is shown in [Figure 12.1, “The Browser Window of Firefox”](#) (page 220). The navigation toolbar includes *Forward* and *Back* and a location bar for a Web address. Bookmarks are also available for quick access. For more information about the various Firefox features, use the *Help* menu.

Figure 12.1 *The Browser Window of Firefox*



12.1.1 Tabbed Browsing

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

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

12.1.2 Using the Sidebar

Use the left side of your browser window for viewing bookmarks or the 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.

12.2 Finding Information

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

12.2.1 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.

Customizing the Search Bar

If you want to change the order, add, or delete a search engine to the bar, 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, *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 others. Click on a plug-in link and choose *Add* to install it.

12.2.2 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. Usually, it is displayed at the bottom of a window. Type your query in the input field. Firefox finds the first occurrence of this phrase. You can find other occurrences of the phrase by pressing F3 or the *Next* button in the find bar. You can also highlight all occurrences by pressing the *Highlight all* button. Checking the *Match case* option makes the query case-sensitive.

12.3 Managing Bookmarks

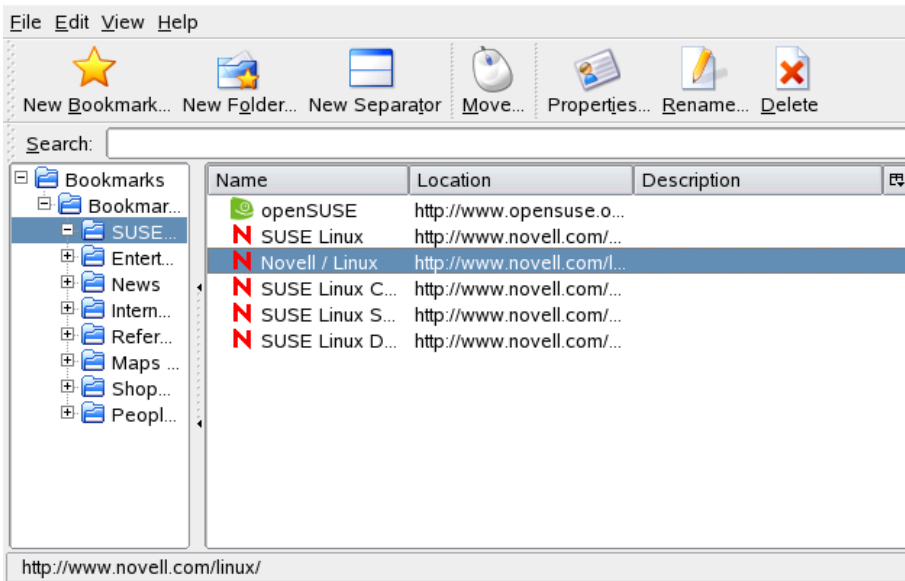
Bookmarks offer a convenient way of saving links to your favorite Web sites. To add the current Web site to your list of bookmarks, click *Bookmarks > Bookmark This Page*. If your browser currently displays multiple Web sites on tabs, only the URL on the currently selected tab is added to your list of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

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

12.3.1 Using the Bookmark Manager

The bookmark manager can be used to manage the properties (name and address location) for each bookmark and organize the bookmarks into folders and sections. It resembles [Figure 12.2, “Using the Firefox Bookmark Manager”](#) (page 223).

Figure 12.2 Using the Firefox Bookmark Manager



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

12.3.2 Importing Bookmarks from Other Browsers

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

To import your settings, click *File > Import*. Select the browser from which to import settings. After you click *Next*, your settings are imported. Find your imported bookmarks in a newly created folder, beginning with `From`.

12.3.3 Live Bookmarks

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

Many sites and blogs support this format. A Web site indicates this by showing an orange icon in the right part of the location bar. Click the icon and choose *Subscribe now* in the page that opens. A dialog box 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*. To manually add a live bookmark, you need the URL of the feed. Proceed as follows:

Procedure 12.1 *Manually Adding a Live Bookmark*

- 1 Open the bookmark manager with *Bookmarks > Organize Bookmarks*.
- 2 Select *File > New Live Bookmark*
- 3 Insert a name for the live bookmark and enter the URL in the *Feed Location*, for example, <http://www.novell.com/newsfeeds/rss/cool solutions.xml>. Firefox updates your live bookmarks.
- 4 Close your bookmark manager.

12.3.4 The Bookmarks Toolbar

The `Bookmarks Toolbar` is displayed beneath the navigation 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 in several folders (see [Figure 12.1, “The Browser Window of Firefox”](#) (page 220)).

To manage the **Bookmarks Toolbar** you can use the bookmark manager as described in [Section 12.3.1, “Using the Bookmark Manager”](#) (page 222). 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 on an empty space in the toolbar and choose the appropriate entry from the pop-up menu. For adding the current page to the bar use drag and drop: left-click on the Web page's icon in the navigation bar and drag it to the desired position on the bookmarks toolbar while holding the mouse button pressed. Hovering over an existing bookmark folder for a short while will automatically open it enabling you to place the bookmark within this folder.

To manage a certain folder or bookmark, right-click on 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.

12.4 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, click *Open*. With *Remove*, remove it from the list. If you need information about the file, right-click the filename and choose *Properties*.

NOTE

Removing a file from the download manager only removes the list entry, 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 manger's configuration window from *Edit > Preferences* and go to the *Main* tab. In the *Download* area, either choose another default location or *Always ask me where to save files*.

12.5 Password Management

Every time you enter a username and a password on a Web site, Firefox offers to store this data. If you accept by clicking *Remember*, the password will be stored on your hard

disk in an encrypted format. 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 > Show Passwords...* The Password Manager opens with a list of sites and their corresponding usernames. By default, the passwords are not displayed—click on *Show Passwords* to display them. Delete single or all entries from the list using *Remove* or *Remove All*, respectively.

If you are also using the GNOME Keyring or the KDE Wallet to store other passwords, SUSE Linux Enterprise lets you manage these together with the Firefox password manager via CASA (Common Authentication Service Adapter). Learn how to use and configure CASA in the *GNOME User Guide* or the *KDE User Guide*.

12.6 Customizing Firefox

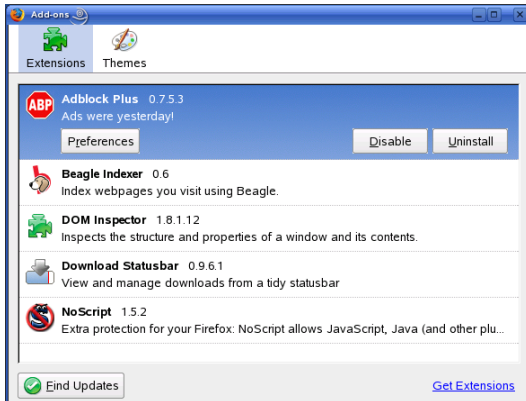
Firefox can be customized extensively. You can install extensions, change themes, and add smart keywords for your online searches.

12.6.1 Extensions

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) or add functions such as a Web log editor, Bit Torrent support or even a music player. Certain extensions also assist Web developers while others increase security by dynamically blocking active contents. More than 1000 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 to installed extensions.

To add an extension, start the add-ons manager with *Tools > Add-ons*. Click on the *Extensions* tab and then on *Get Extensions* in the bottom-right corner to open the Firefox extensions Web page, where you can browse extensions by category. You may also visit <http://addons.mozilla.org/> directly. To install an extension, click on the *Install Now* link on the page describing the extension. In order to activate the extension, Firefox needs to be restarted.

Figure 12.3 *Installing Firefox Extensions*

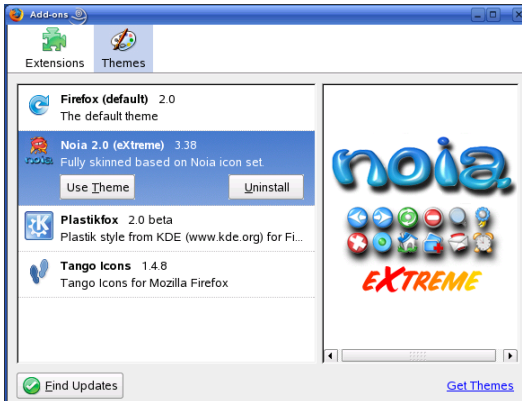


In order to disable or activate a temporarily disabled extension, click on an extension in the add-ons manager and choose *Disable* or *Enable*. To definitely remove an extension, use *Delete*. Firefox always has to be restarted for the change to take effect.

12.6.2 Changing Themes

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. Installing a theme is very similar to installing an extension. Start the add-ons manager as described in [Section 12.6.1, “Extensions”](#) (page 226) and click on the *Themes* tab. Open the themes Web page by clicking on *Get Themes* in the bottom right corner. Proceed as described in [Section 12.6.1, “Extensions”](#) (page 226).

Figure 12.4 *Installing Firefox Themes*



You can always switch between installed themes by clicking *Tools > Add-ons > Themes* and then *Use Theme*. However, Firefox has to be restarted for the change to take effect. If you do not use a theme anymore, you can delete it in the same dialog with *Uninstall*.

12.6.3 Adding Smart Keywords to Your Online Searches

Searching the Internet is one of the main tasks a browser can perform for you. Firefox lets you define your own *smart keywords*: abbreviations to use as a URL shortcut for searching a particular Web site. For example, if you often search within Wikipedia, assign a smart keyword to this search in order to simplify this task:

- 1 Go to <http://en.wikipedia.org>.
- 2 After Firefox displays the Web page, right-click on the search field within the Wikipedia Web page and choose *Add a Keyword for this Search* from the menu that opens.
- 3 The *Add Bookmark* dialog appears. In *Name*, enter a name for this smart keyword, for example, *Wikipedia (en)*.
- 4 Enter your *Keyword* for this search, for example *ws*.

- 5 With *Create in*, choose the location within your bookmarks where to save this smart keyword.
- 6 Finalize with *Add*.

You have successfully generated a new keyword. Whenever you want to search in Wikipedia , you can now type `ws SEARCHTERM` into the navigation bar.

12.6.4 Disabling Features

For special use cases, for instance when using SUSE Linux Enterprise as an Internet terminal, it is desirable to disable (lockdown) certain features, such as saving or printing a page, viewing the page source or disabling the cache. This can be achieved by using the GConf system. See the chapter *GNOME Configuration for Administrators* in the *GNOME User Guide* for detailed information.

12.7 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. To do so, choose *File > Print Preview*. Customize the printing output with *File > Page Setup*. Specify the page orientation and a scaling factor under *Format & Options*. Also choose whether to print the background here. Adjusting the page margins and customizing the page's header and footer is done under *Margins & Header/Footer*.

To print a Web page either choose *File > Print* or type `Ctrl + P`. Select the *Printer* and change its *Properties*. Apart from the printing range and the number of copies to print, you can also specify how a Web page with frames should be printed.

12.8 Opening MHTML Archives

Microsoft* Word and Internet Explorer as well as Opera allow to save a Web page as a single MHTML file, called Web archive. Such an archive encapsulates all the resources necessary to display a Web page into a single archive file that can be viewed offline. By default MHTML archives are not supported by Firefox. The package `mhtml-firefox` installs the Firefox extension `MHTML Archive Reader` for all

users and also binds MHTML archives (ending in either `.mht` or `.mhtml`) to Firefox in the desktop shell.

12.9 For More Information

Get more information about Firefox from the official home page at <http://www.mozilla.com/firefox/>. Refer to the integrated help (available via F1) to find out more about certain options or features.

Reading Newsfeeds with Liferea

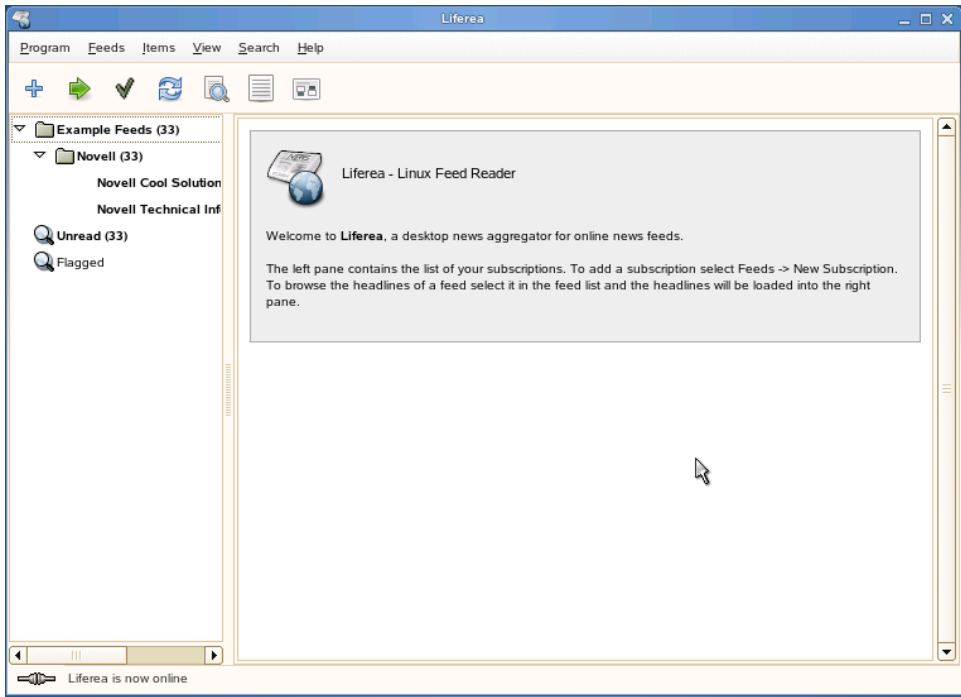
13

Liferea is a news aggregator for receiving and reading online newsfeeds. It provides GNOME users a fast, easy-to-use interface for reading Internet newsfeeds and blogs.

13.1 Starting Liferea

To start Liferea, click *Computer > More Applications > Communicate > Liferea*.

Figure 13.1 *Liferea Main Screen*



By default, the Liferea interface is divided into two sections: the feed list and the item list. The feed list, on the left, contains a list of your subscriptions. When you click on a subscription, the headlines for that subscription appear in the item list, on the right. When you click on a headline, the contents of that feed appear in the view pane, beneath the item list.

Drag the borders between each pane to resize the panes for a more comfortable viewing.

13.2 Reading a Newsfeed

Liferea comes preconfigured to receive newsfeeds from Novell® Cool Solutions™ and Novell Technical Information. To read one of these example feeds:

- 1 Start Liferea as described in [Section 13.1, “Starting Liferea”](#) (page 231).

- 2 In the Feed List, click the subscription you want to read.

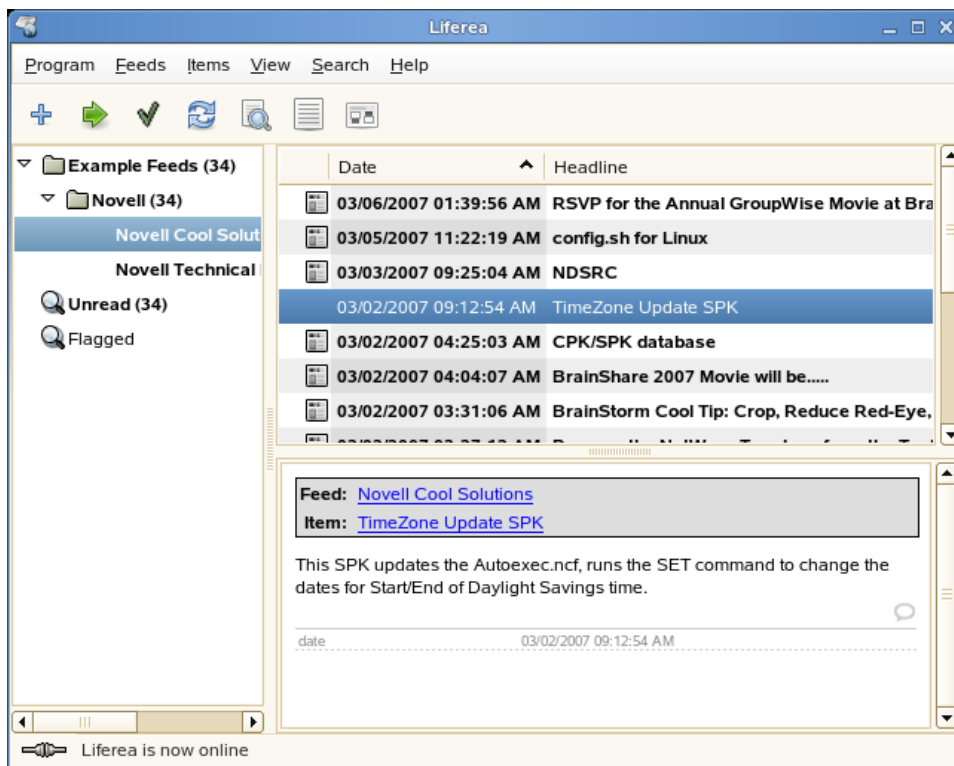
For example, click *Example Feeds > Novell > Novell Cool Solutions*.

- 3 Click a headline in the Item List.

Unread headlines appear in bold text. When you click a headline, the selected item opens for reading in the view pane.

Unlike many news aggregators, Liferea lets you read news even if you are offline. After headlines are fed to Liferea, you can read the items, whether you are online or not. You must be online, however, to update your newsfeeds with the latest headlines.

Figure 13.2 Reading a Newsfeed with Liferea



13.3 Creating a New Subscription

You can subscribe to feeds from many locations on the Internet. These include news and information services, blogs, discussion forums, and more. This section describes how to add a subscription. The example in the following procedure shows how to subscribe to the CNN* Top Stories newsfeed, but the process is very similar for most feed providers.

1 Start Liferea as described in [Section 13.1, “Starting Liferea”](#) (page 231).

2 Obtain the URL for the desired feed.

For example, to obtain the CNN newsfeed URL:

2a Open your browser and go to <http://www.cnn.com>.

2b Scroll down near the bottom of the CNN page, then click *RSS*.

2c Locate the URL for the Top Stories feed in the list provided by CNN and copy it.

For this example, the URL is http://rss.cnn.com/rss/cnn_topstories.rss.

3 In Liferea, click *Feeds > New Subscription*.

4 Paste the URL into the *Source* field.

5 Click *OK*.

6 Enter a name for the feed and the amount of time you want to pass before the feed is checked for updates, then click *OK*.

The newsfeed is added to the Feed List. Any headlines are downloaded and added to the Item List.

13.4 Updating Subscriptions

Subscriptions are updated with the latest headlines according to the time interval you set when you created the subscription. You can also update your subscriptions manually, before the interval has passed.

You have the following choices:

Update all subscriptions at once

Click *Feeds > Update All*.

Update all subscriptions within a folder or update a specific subscription

Click *Feeds > Update Selected*

13.5 For More Information

For more information about using Liferea, click *Help* or refer to the official Liferea home page at <http://liferea.sourceforge.net/>.

Part IV. Multimedia

Manipulating Graphics with The GIMP

14

The 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, The 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.

The GIMP is an extremely complex program. Only a small range of features, tools, and menu items are discussed in this chapter. See [Section 14.7, “For More Information”](#) (page 254) for ideas of where to find more information about the program.

14.1 Graphics Formats

There are two main types of graphics—raster and vector. The GIMP is intended for working with raster graphics, which is the normal format for photographs and scanned images. Raster graphics consist of pixels—small blocks of color that together create the entire image. The 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. The GIMP supports most common formats of raster graphics.

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. There are many specialized applications for vector graphics, for example Inkscape. The GIMP has only a very limited support for vector graphics. For example, the GIMP can open and rasterize vector graphics in SVG format or work with vector paths.

14.2 Starting The GIMP

Start The GIMP from the main menu. Alternatively, enter `gimp &` in a command line.

14.2.1 Initial Configuration

When starting The GIMP for the first time, a configuration wizard opens for preparatory configuration. The default settings are acceptable for most purposes. Press *Continue* in each dialog unless you are familiar with the settings and prefer another setup.

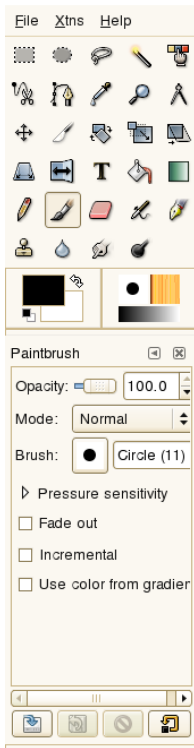
14.2.2 The Default Windows

Three windows appear by default. They can be arranged on the screen and, except the toolbox, closed if no longer needed. Closing the toolbox closes the application. In the default configuration, The GIMP saves your window layout when you exit. Dialogs left open reappear when you next start the program.

The Toolbox

The main window of The GIMP, shown in [Figure 14.1, “The Main Window”](#) (page 241), contains the main controls of the application. Closing it exits the application. At the very top, the menu bar offers access to file functions, extensions, and help. Below that, find icons for the various tools. Hover the mouse over an icon to display information about it.

Figure 14.1 *The Main Window*



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.

To the right, the current brush, pattern, and gradient are shown. Click the displayed one to access the selection dialog. The lower portion of the window allows configuration of various options for the current tool.

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.

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 14.5.6, “Layers”](#) (page 252). *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 14.5.5, “Undoing Mistakes”](#) (page 252).

14.3 Getting Started

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

14.3.1 Creating a New Image

To create a new image, select *File > New* or press Ctrl + N. 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 *File > 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 images to print. For most printers, a resolution of 300 pixels per inch results in an acceptable quality.

In *Colorspace*, select whether the image should be in color (*RGB*) or *Grayscale*. For detailed information about image types, see [Section 14.5.7, “Image Modes”](#) (page 253). 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. 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.

14.3.2 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.

14.3.3 Scanning an Image

Instead of opening an existing image or creating a new one, you can scan one. To scan directly from The GIMP, make sure that the package *xsane* is installed. To open the scanning dialog, select *File > Acquire > XSane: Device dialog*.

Create a preview when the object to scan is smaller than the total scanning area. Press *Acquire preview* in the *Preview* dialog to create a preview. If you want to scan only part of the area, select the desired rectangular part with the mouse.

In the *xsane* dialog, select whether to scan a binary (black and white without shades of gray), grayscale, or color image and the required scan resolution. The higher the resolution you choose, the better the quality of the scanned image. However, this also results in a correspondingly larger file and longer scanning process, due to a higher resolution. The size of the final image (both in pixels and bytes) is shown in the lower part of the dialog.

In the *xsane* dialog, use the sliders to set desired gamma, brightness, and contrast values. These sliders are not available in binary mode. Changes are visible in the preview immediately. Once all settings have been made, click *Scan* to scan the image.

14.3.4 The Image Window

The new, opened, or scanned image appears in its own window. The menu bar in the top of the window provides access to all image functions. Alternatively, access the menu by right-clicking the image or clicking the small arrow button in the left corner of the rulers.

File offers the standard file options, such as *Save* and *Print*. *Close* closes the current image. *Quit* closes the entire 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 *Shrink Wrap* is selected, the image window is resized to fit the current image display exactly.

14.4 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 filename. 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 filename and type. Enter the filename 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, The GIMP determines the file type based on the extension appended to the filename. 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 14.5.6, “Layers”](#) (page 252).

PAT

This is the format used for The GIMP patterns. Saving an image in this format enables using the image as a fill pattern in The GIMP.

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 14.5.7, “Image Modes”](#) (page 253) 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 the 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.

14.5 Editing Images

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

14.5.1 Changing the Image Size

Once 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. Making an image larger is much more problematic. Because of the nature of raster graphics, quality is lost when an image is made larger. It is recommended to keep a copy of your original image before scaling or cropping.

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 & Resize*. Click a starting corner and drag to outline the area to keep.

A small window opens with information about the starting point and the size of the selected area. Adjust these values by clicking and dragging a corner of the crop box or by adjusting the values in the window. *From Selection* adjusts the crop to fit the current selection (selections are explained in [Section 14.5.2, “Selecting Parts of Images”](#) (page 247)). *Auto Shrink* makes the crop smaller based on color changes in the image.

Press *Cancel* to abort the crop. Press *Crop* to crop the image. The results of *Resize* are identical to those of *Change Canvas Size*, described in [Section “Changing the Canvas Size”](#) (page 247).

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 when the value in one of the fields is changed. Adjust the resolution with *X resolution* and *Y resolution*.

Interpolation is an expert option that controls the scale method. When finished adjusting the size, press *Scale* to scale the image. *Reset* restores the original values. *Cancel* aborts the procedure.

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.

14.5.2 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*.

Using the Selection Tools

The main select 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 select 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. In the tool options, select among *Free Select*, *Fixed Size*, and *Fixed Aspect Ratio* to control the shape and size of the selection. To make a square selection in the free select mode, hold Shift while selecting a region.

Ellipse Select

Use this to select elliptical or circular areas. The same options are available as with rectangular selection. Holding Shift during selection produces a circle.

Free Select (Lasso)

Draw a selection area freehand with this tool by dragging the mouse over the image with the left mouse button pressed. The end points will be connected with a straight line when you release the tool. The area inside is then selected.

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 Color Select

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*.

Intelligent Scissors

Click a series of points in the image. As you click, the points are connected based on color differences. Click on the first point to close the area. Convert it to a regular selection by clicking inside it.

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 (freehand 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 allows 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 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.

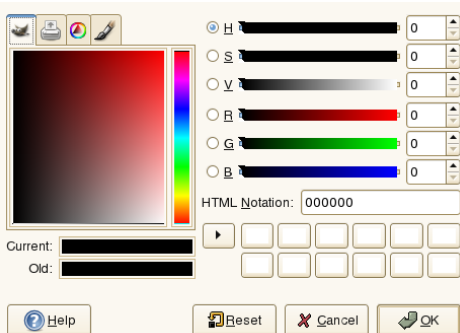
14.5.3 Applying and Removing Color

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 an area will be painted.

Selecting Colors

Paint tools use the foreground color. To select the color, first click the display box of the foreground color. A dialog with four tabs opens. These tabs provide different color selection methods. Only the first tab, shown in [Figure 14.2, “The Basic Color Selector Dialog”](#) (page 249), is described here. The new color is shown in *Current*. The previous color is shown in *Old*.

Figure 14.2 *The Basic Color Selector Dialog*



The easiest way to select a color is 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 saving 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 color picker tool, the icon for which resembles an eye dropper. 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.

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.

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 on a special layer. To work with the image after adding text, read [Section 14.5.6, “Layers”](#) (page 252). 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.

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 *Non Aligned* (the default setting), the source resets to the original when you release the left mouse button.

14.5.4 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 The GIMP, but better results can be obtained by adjusting the color levels.

To do this, select *Layer > 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*. Alternatively, 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 how the image would look 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.

14.5.5 Undoing Mistakes

Most modifications made in The 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 toolbox menu with *File > 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 Ctrl + Z and Ctrl + Y.

14.5.6 Layers

Layers are a very important aspect of The GIMP. By drawing parts of your image on separate layers, 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.

Only layers with transparency (an alpha channel) can be placed above other layers in a stack. To add this to a layer, right-click and select it from the menu.

14.5.7 Image Modes

The 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, The GIMP offers to index the image when saving.

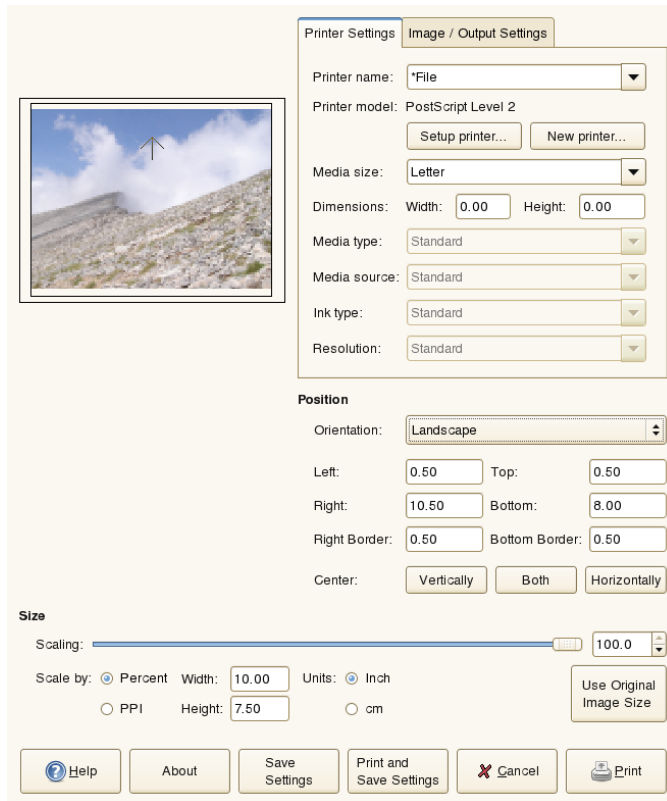
14.5.8 Special Effects

The 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* and *Script-fu*. Experimenting is the best way to find out what is available. *Xtns* in the toolbox includes a number of items for creating buttons, logos, and other things.

14.6 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. In some cases, it may be necessary to select an appropriate driver with *Setup Printer*. Select the appropriate paper size with *Media Size* and the type in *Media Type*. Other settings are available in the *Image / Output Settings* tab.

Figure 14.3 *The Print Dialog*



In the bottom portion of the window, adjust the image size. Press *Use Original Image Size* to take these settings from the image itself. This is recommended if you set an appropriate print size and resolution in the image. Adjust the image's position on the page with the fields in *Position* or by dragging the image in *Preview*.

When satisfied with the settings, press *Print*. To save the settings for future use, instead use *Print and Save Settings*. *Cancel* aborts printing.

14.7 For More Information

The following resources are useful for users of The GIMP, even if some of them apply to older versions.

- *Help* provides access to the internal help system. This documentation is also available in HTML and PDF formats at <http://docs.gimp.org>.
- Find many tutorials explaining basic or advanced image manipulation techniques with The GIMP at <http://gimp.org/tutorials/>.
- The GIMP User Group offers an informative Web site at <http://gug.sunsite.dk>.
- <http://www.gimp.org> is the official home page of The GIMP.
- *Grokking the GIMP* by Carey Bunks is an excellent book based on an older version of The GIMP. Although some aspects of the program have changed, it can provide excellent guidance for image manipulation. An online version is available at <http://gug.sunsite.dk/docs/Grokking-the-GIMP-v1.0/>.

Managing Your Digital Image Collection

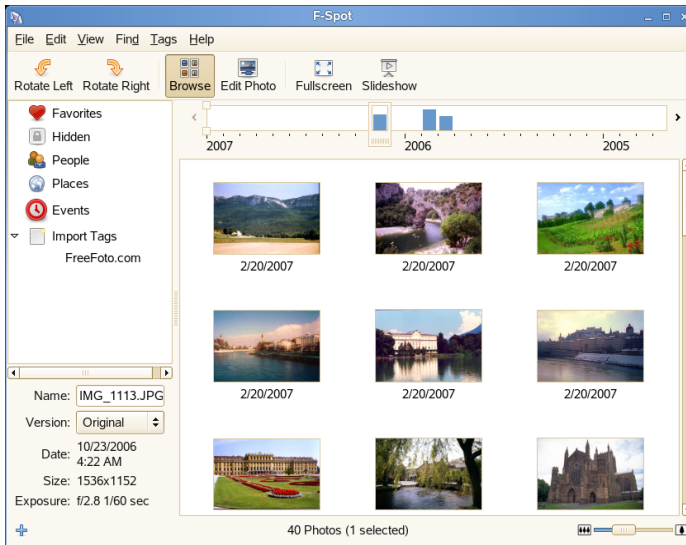
15

F-Spot is a management tool for your collection of digital images tailored for the GNOME desktop. It allows you to assign different tags to your images in order to categorize them and offers various neat image editing options. For example, you can remove red-eye, crop, and adjust brightness and colors. F-Spot supports sixteen common file types, including JPEG, GIF, TIFF, and RAW.

You can import photos from your hard drive, your digital camera, or your iPod. You can also use F-Spot to create photo CDs, generate a Website gallery, or export your photos to your Flickr, 23, Picasa Web, or SmugMug account.

To access F-Spot, click *Computer > F-Spot Photo Browser*. The first time you run F-Spot, you can declare a file folder with the images you want to import into your collection. If you already have a collection of images stored on your hard drive, enter the path to the respective directory and optionally include subfolders. F-Spot imports these images into its database.

Figure 15.1 *F-Spot Main Window*





F-Spot's main window is divided into three main areas. Categories, tags, and detailed information for the selected images are displayed in a sidebar on the left and thumbnails of all images bearing the selected tag or category or, if none is selected, the entire collection is displayed in the right part of the window.

By default, your photos are displayed in reverse-chronological order, so your latest photos are always at the top. You can sort your photos in chronological order or reverse-alphabetical order by clicking *View > Reverse Order*.

A menu bar at the top of the window allows you to access the main menus. A toolbar below the menu bar offers the following options:

Table 15.1 *F-Spot Toolbar*

Icon	Description
	Rotate (Left or Right)
	Browse

Use this shortcut to change the orientation of an image.

The Browse mode allows you to view and search your entire collection or tagged subsets of it. You can also use the time line to search images by creation date.

Icon	Description
Edit Photo	This mode allows you to select one image and do some basic image processing. Details are available in Section 15.7, “Basic Photo Editing” (page 269).
Fullscreen	Switch to fullscreen display mode.
Slideshow	Start a slide show.

15.1 Importing Photos

You can import photos from your hard drive or from your digital camera (see [Section 15.2, “Downloading Pictures from Your Camera”](#) (page 260) for more information). F-Spot automatically makes copies of photos imported from your hard drive. If you do not want to copy images, uncheck *Copy files to the Photos folder* on the Import dialog box, or press Shift when dragging photos into F-Spot.

Figure 15.2 *Importing Images into F-Spot*



By default, F-Spot copies your photos to the `/Photos` directory in your home directory. You can change the directory F-Spot uses by clicking *Edit > Preferences*.

If all the photos you are importing are from a particular event, or if they have some other characteristic in common, you can create a tag for them so you can easily find them at a later time. During the import, select *Attach Tag*, then choose the appropriate tag from the drop-down menu.

To import photos:

- 1 Click *File > Import*.
- 2 Select an import source, then click *Open*.
- 3 After the photos are finished loading, click *Import*.

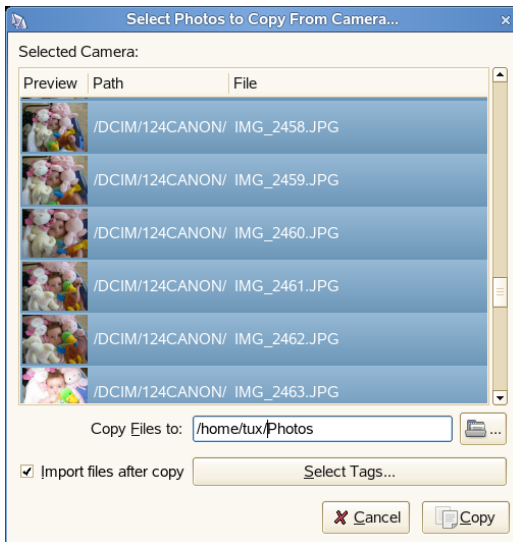
The photos are added to your catalog.

15.2 Downloading Pictures from Your Camera

You can import new images from your digital camera by connecting it to the USB port of your computer. The type of camera is detected automatically. When you import photos from your camera, F-Spot makes copies of them so that you can clear your camera's memory.

- 1 Click *File > Import*.
- 2 Select your camera as the import source.

F-Spot launches a preview window displaying all the images that are available for download from your camera. The files are copied to the target directory specified via *Copy Files to*. If *Import files after copy* is selected, all images copied from the camera are automatically imported to F-Spot's database. Tagging can be done on import, if you select the appropriate tag with *Select Tags*. If you do not want to import all images on your camera to your database, just deselect the unwanted ones in the preview window.



3 Click *Copy*.

4 When the photo transfer is complete, click *OK*.

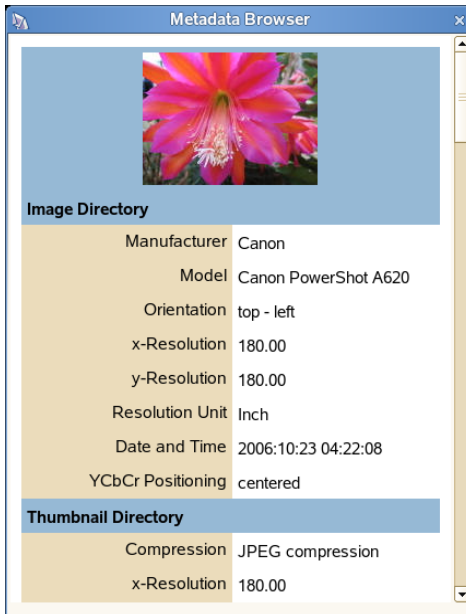
The photos are added to your catalog.

15.3 Getting Photo Information

When you select an image, some basic statistical information is displayed in the lower-left part of the window. This includes the filename, its version (copy or original image), the date of creation, size, and the exposure used in creating this particular photo.

To view more detailed information on a photo, including the EXIF data associated with the file, click *View > Metadata Browser*.

Figure 15.3 *F-Spot Metadata Browser*



15.4 Managing Tags

Use tags to categorize any of your photos to create manageable subsets of your collection. F-Spot comes with default tags, but you can change them and add new ones. If, for example, you want to organize your collection of portrait shots of your friends or family, do the following:

- 1** Select the *Browse* mode of F-Spot.
- 2** In the left frame of the F-Spot window, right-click the *People* category, then select *Create New Tag*.
 - 2a** Create a new tag called `Friends`.
 - 2b** Create a new tag called `Family`.

The new tags appear as subcategories below the *People* category.

3 Attach tags to images or groups of selected images.

Right-click an image, select *Attach Tag*, then select the appropriate tag for this image. To attach a tag to a group of images, click the first one, then press Shift and select the other ones without releasing the Shift key. Right-click for the tag menu and select the matching category.

You can also use the following methods to tag photos:

- Drag and drop a photo onto a tag.
- Drag and drop a tag onto the photo.
- Use the options on the *Tags* menu and the *Edit* menu.
- Select a photo, then press t to display the Tags entry bar.

The first photo you associate with a tag is used for that tag's icon. To edit a tag's name, parent tag, or icon, right-click the tag, then select *Edit Tag*.

You can change a tag's parent by dragging and dropping it where you want. You can also edit the name of a tag by selecting it and pressing F2.

After your photos have been tagged, you can browse your collection by tags. Using our earlier example, clicking *People > Family* limits the displayed collection to the photos tagged *Family*. Searching your collection by tag is also possible through *Find > Find Selected Tag*. The result of your search is displayed in the thumbnail overview window.

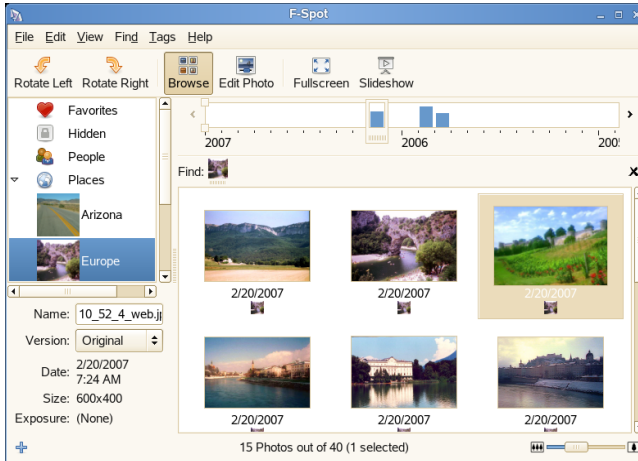
Removing tags from single images or groups of images works similarly to attaching them. The tag editing functions are also accessible on the *Tags* menu in the top menu bar.

15.5 Searching and Finding Photos

As mentioned in [Section 15.4, “Managing Tags”](#) (page 262), tags can be used as a means to find certain images. Another way to find images is to use the *Timeline* below the toolbar. By dragging the little frame along this time line, you can limit the images displayed in the thumbnail overview to those taken in a selected time frame. F-Spot starts with a default time line, but you can edit the time span by moving the sliders to the right and left of the time line.

You can also start a search by clicking *Find > Show Find Bar*. With the find bar displayed, you can drag tags from the tag view to the find bar.

Figure 15.4 *Show Find Bar in F-Spot*



To find photos that are tagged with more than one tag, select the first tag in the tag view (or drag the tag onto the Find bar), then drag the second tag and drop it on top of the first. You can also right-click the second tag in the tag view, or click *Find > Find Selected Tag With*, then select the first tag (or group of tags).

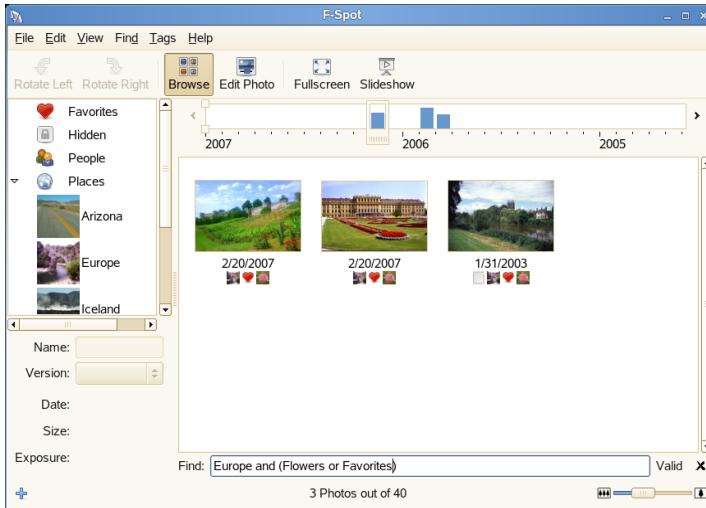
You can search for photos that do not have a particular tag by double-clicking a tag in the Find bar. Photos that do not have that tag (or any tag at all) are displayed. You can also right-click a tag in the Find bar, then select *Exclude*.

To remove a tag from the search, drag it away from the Find bar, or right-click the tag and select *Remove*.

By default, photos tagged Hidden will not be shown. You must explicitly include the Hidden tag in your search to show such photos.

There is also a type-to-find entry. Press the forward slash (/) to open it. It cannot be used at the same time as the Find bar. You can type queries such as “TagA and (TagB or (TagC and TagD))”. At any point, if F-Spot recognizes what you have typed as a valid query, it will update your search. The *not* operator is not yet supported.

Figure 15.5 *Type-to-find Search*



15.6 Exporting Image Collections

F-Spot offers a range of different export functions for your photo collections.

15.6.1 Generating a Website Gallery

If you use the PHP software known as Gallery [<http://gallery.sourceforge.net>], you can post your photos to your existing album. Ensure that the Remote module in your Gallery installation is enabled (*Site Admin > Plugins (Get More Plugins) > Remote*).

PennAve [<http://pennave.sourceforge.net/>] is another dynamic photo gallery application. It is designed to be used in conjunction with F-Spot to organize and manage your photos.

- 1 Select the photos you want to export.
- 2 Click *File > Export > Export to Web Gallery*.



- 3 Select a gallery you want to export your images to, or click *Add* to add a new gallery.

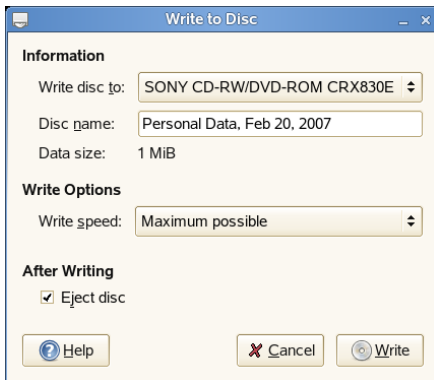
F-Spot establishes a connection to the Web location entered for your Web gallery.

- 4 Select the album you want to export the images to, then specify whether to scale the images automatically and export titles and comments.
- 5 Click *OK*.

15.6.2 Exporting Photos to CD

- 1 Select the photos you want to burn to CD.
- 2 Click *File > Export > Export to CD*, then click *OK*.

F-Spot copies the files and opens the *Write to Disc* dialog box.



- 3 Assign a name to your image disk, then select the writing speed.
- 4 Click *Write* to start the CD writing process.

15.6.3 Exporting Photos to a Folder

- 1 Select the photos you want to export.
- 2 Click *File > Export > Export to Folder*.



- 3 Choose from the following export methods:

Create standalone Web gallery: Exports your photos to an interactive Web-site, ready for you to upload.

Save the files only: Exports your photos as files within directories, without putting them into a gallery.

Create gallery using “Original”: Exports your photos ready for use with Jakub Steiner's Original Photo Gallery [<http://jimmac.musichall.cz/original.php>] software.

4 Click *OK*.

15.6.4 Posting to a Flickr, Picasa Web Album, SmugMug, or 23 Account

If you use Flickr [<http://www.flickr.com/>], Picasa Web Album [https://www.google.com/accounts/ServiceLogin?hl=en_US&continue=http%3A%2F%2Fpicasaweb.google.com%2F&passive=true&service=lh2], SmugMug [<http://www.smugmug.com/>], or 23 [<http://www.23hq.com/>], you can post your files directly from F-Spot to your account.

- 1 Select the photos you want to export.
- 2 Click *File > Export > Export to Flickr, Export to Picasaweb, Export to SmugMug, or Export to 23hq*.
- 3 Select or unselect the options you want in the Export dialog box.

The options displayed on the Export dialog box depend on the type of account you are exporting to. For example, Flickr and 23 exports require authorization in order to upload photos. To do this, click *Authorize* to open a Web browser, then log in to your account.

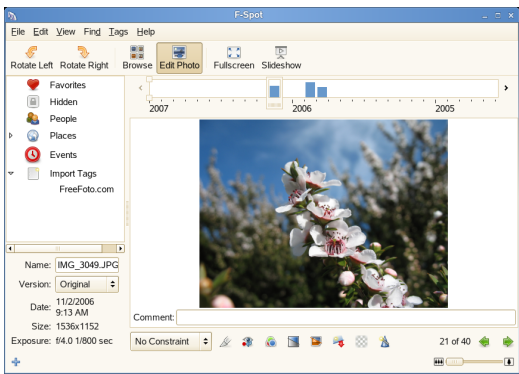
4 Click *OK*.

15.7 Basic Photo Editing


F-Spot offers several basic image editing functions, such as the ability to remove red-eye, crop, and adjust colors and brightness.






When you edit a photo, a new copy (called a version) is created, so your original photo is never altered. After your first edit to a photo, subsequent edits modify the same version. If you want to create multiple versions of a photo (for example, with different cropping or coloring), click *File > Create New Version*. To access a photo’s original version, click *File > Version > Original*.



- 1 Select the photo you want to edit.
- 2 To enter edit mode, click the *Edit Photo* icon in the toolbar, double-click the image, or press Enter.



- 3 Choose from the following edit functions, using the toolbar below the photo or items on the *Edit* menu:

Function	Description
 Adjust Colors	To adjust the brightness, contrast, and colors of a photo, click the <i>Adjust the photo colors</i> icon to open the adjustment dialog box. Change the settings you want, then click <i>OK</i> .

Function	Description
 AutoColor	This effect automatically adjusts color levels to make a color-balanced picture. It works best for pictures taken with automatic white balance. Click the <i>Automatically adjust the colors</i> icon to access this feature.
Comment	You can add a description or a comment to a photo by clicking the text entry box below the photo and entering text.
 Convert to Black and White	Converts the photo to black and white.
 Convert to Sepia Tones	Converts the photo to sepia tones.
 Crop	<p>Cropping an image is a great way to improve the quality of a photograph by improving how it is framed. You crop a photo by selecting the part of the photo you want to keep. If you want your photo to be the exact dimensions necessary for a certain print size, you can constrain the kind of selection F-Spot will allow you to draw by choosing the appropriate size from the <i>Constraint</i> drop-down list. See the description of the Remove Red-Eye function for details on making a selection on your photo.</p> <p>After you make your crop selection, click the <i>Crop</i> icon beneath the photo to finalize the crop. If you are working with the original photo, cropping creates a new version of your photo.</p>
 Remove Red-Eye	To remove red-eye from a photo, select a zone containing the eyes. You might want to zoom in on the image to accurately select the eyes in the

Function	Description
	<p>photo. You should be able to correct both eyes on the same person or even the eyes from multiple persons at once. If this does not work, or if the selected zone contains some vivid red parts (such as lips), you will probably have to correct one red eye at a time.</p> <p>To make your selection, click one corner of the rectangle that will be your selection, then drag your mouse to the diagonal corner and release it. You can resize your selection by dragging its edges, and you can move it by clicking in the middle of it and dragging it to where you want it.</p> <p>After you have selected a zone, remove the red by clicking the <i>Red-eye</i> icon beneath the photo.</p>
Sharpen	<p>Access this function by clicking <i>Edit > Sharpen</i>. Adjust the values for <i>Amount</i>, <i>Radius</i>, and <i>Threshold</i> to your needs, then click <i>OK</i>.</p>
 Soft Focus	<p>Sharpening one region of a picture while blurring all the rest is a way to emphasize a particular area and grab attention. The soft focus effect is a way to emulate a lens that allows shooting with a short distance in front of and beyond the subject that appears to be in focus.</p> <p>Choose the central point of the area you want to be in focus, then click the <i>Soft Focus</i> icon beneath the photo. Adjust the amount of blurring, then click <i>Apply</i>.</p>
 Straighten	<p>The Straighten effect helps you level a photo and is useful when editing landscapes taken without a tripod (when the imaginary line of horizon is not at 0°). This tool rotates a photo by a specified angle</p>

Function	Description
	and automagically crops the resulted image so that you always see a perfect rectangle.

4 If you want to edit another photo, use the arrow keys at the bottom right to switch to a new photo. This is optional.

5 To exit the edit mode, click *Browse* on the toolbar.

TIP

Professional image editing can also be done with The GIMP. For more information, see [Chapter 14, Manipulating Graphics with The GIMP](#) (page 239).

15.8 Sharing Photos

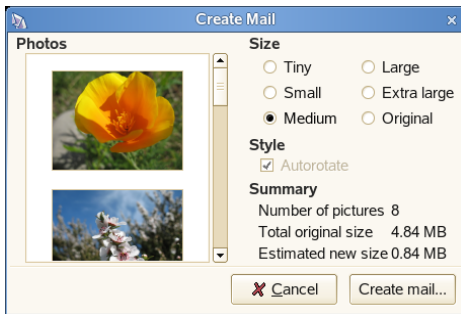
You can use either of the following methods to share your photos using F-Spot. Both methods share only the photos you have selected when you run them.

15.8.1 E-mailing Photos

You can e-mail your photos directly from F-Spot, sending them as they are (original size) or resizing them.

1 Select the photos you want to e-mail.

2 Click *File > Send Mail*.



3 Select a size for your photos.

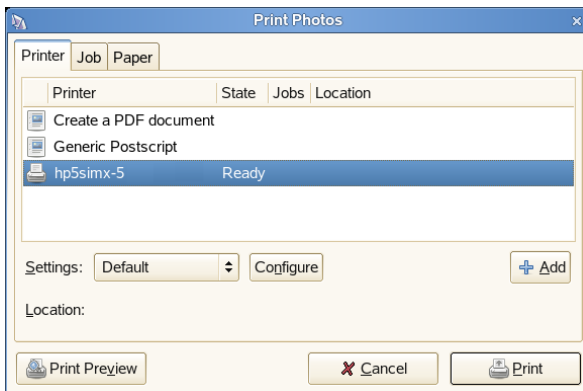
4 Click *Create mail*.

Your default e-mail program opens, with your photos attached to a new mail message.

15.8.2 Printing Photos

1 Select the photos you want to print.

2 Click *File > Print*.



- 3 Select the print options you want, such as the printer you want to use or the page orientation, then click *Print* to print your photos.

Playing and Managing Your Music with Helix Banshee

16

Helix* Banshee™ is a GNOME music management and playback application that lets you import CDs, sync your music collection to an iPod* or other digital audio player, play music directly from an iPod (or other digital audio player), create playlists with songs from your library, create audio and MP3 CDs from subsets of your library, and subscribe to, download, and listen to your favorite podcasts. Helix Banshee also supports streaming audio through its Internet Radio plug-in.

To open Helix Banshee, click *Computer > Helix Banshee Music Player*.

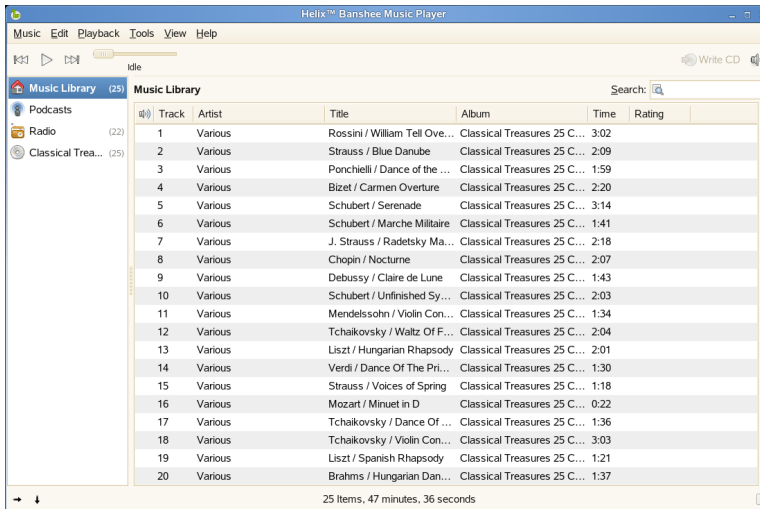
The first time you open Helix Banshee, you are prompted to accept a license agreement, after which you are prompted to import music. Choose an import source, such as your home directory, a local folder, or a local file, then click *Import Music Source*.

Figure 16.1 *Import Music Library*



After successfully importing your music, your library is displayed.

Figure 16.2 *Helix Banshee Library*



16.1 Listening to Music

To listen to music, Helix Banshee needs to know what is available to listen to. You can listen to music in your library, which means that you will need to import music from an external source such as a file, folder, or CD, or you can listen to music directly off a CD. You can also listen to music on Internet radio stations, podcasts, and your digital audio player (see [Section 16.3, “Using Helix Banshee with Your Digital Audio Player”](#) (page 285) for more information).

16.1.1 Importing Music

Helix Banshee can import music from a file, folder, or CD.

- 1 In Helix Banshee, click *Music > Import Music*.
- 2 Select an import source.
- 3 Click *Import Music Source*.

Helix Banshee can automatically query MusicBrainz [<http://musicbrainz.org>] for extra information about tracks that you import, and fetch cover art for display when you play a song. To enable this feature, click *Edit > Plugins*, then select *Metadata Searcher*.

16.1.2 Playing Your Music

To play a song, simply select the song in the library and click the play button in the upper left corner. Use the other buttons to pause a song or play the next or previous song. Use the loudspeaker button on the right to adjust the volume. You can also use the items on the *Playback* menu to repeat or shuffle songs.

Helix Banshee also has an integrated CD player. When you insert a music CD, your CD title appears in the left panel. Select the title and click the play button to play your full CD.

Notification Area Icon

You can keep Helix Banshee hidden in the notification area when you are not interacting with it by minimizing the Helix Banshee window. You will only see pop-up bubbles identifying the current song when track changes happen.

If you do not want to see the pop-ups, click *Edit > Plugins > Notification Area Icon > Configuration*, then deselect *Show notifications when song changes*.

Mini Mode

You can also use the Mini Mode feature to condense the interface and free up valuable desktop space. You can switch between your library, playlists, and music devices while in Mini Mode. To activate Mini Mode, click *View > Mini mode*.

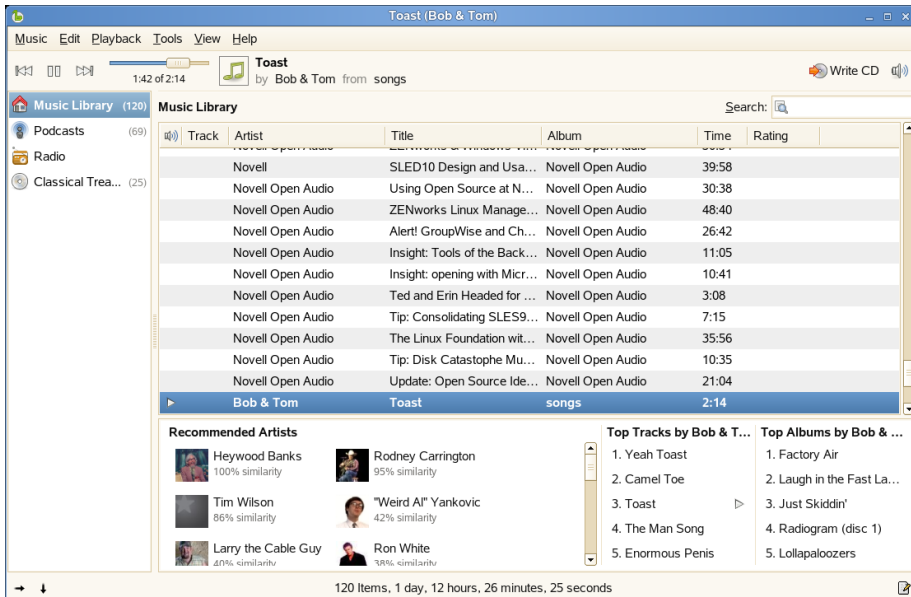
Figure 16.3 *Helix Banshee in Mini Mode*



Music Recommendations

Helix Banshee automatically recommends music that you might like, based on the currently playing song. It finds artists and popular songs that people with similar musical tastes enjoy.

Figure 16.4 *Helix Banshee Music Recommendations*



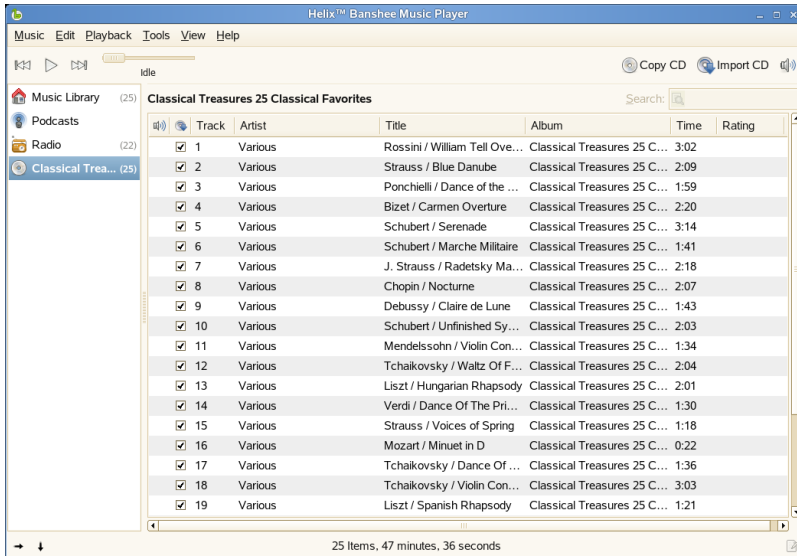
If you do not want to receive recommendations, click *Edit > Plugins*, then deselect *Music Recommendations*.

16.1.3 Ripping Your Music

To rip music from a CD and add it to your library:

- 1 Insert a CD into your CD or DVD drive.

Helix Banshee automatically lists the CD as a source in the left menu.



- 2 Select the CD title in the source list on the left, then click *Import CD* in the upper right corner.

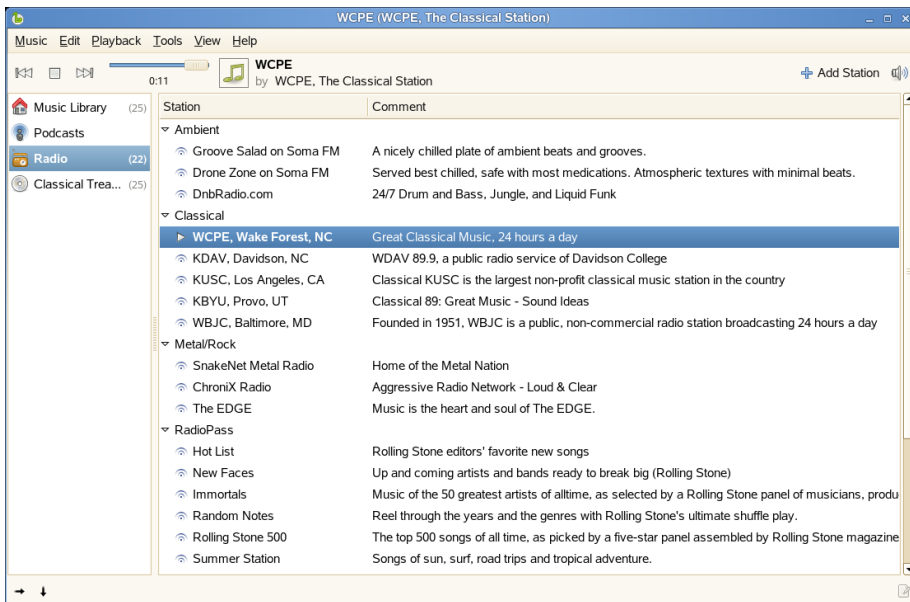
16.1.4 Listening to Internet Radio

You can use Helix Banshee to listen to Internet radio stations and streaming audio. The Radio view in Helix Banshee automatically lists several common Internet radio stations maintained on banshee-project.org [<http://banshee-project.org>]. You can also add your own stations.

Listening to an Internet Radio Station

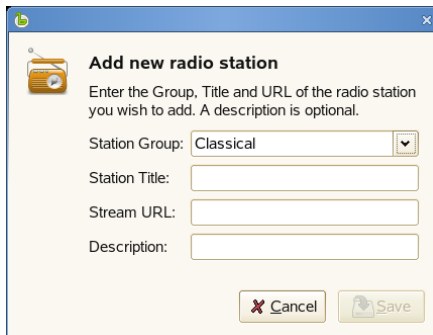
To listen to Internet radio stations, select *Radio* in the source list on the left, then double-click the station you want to listen to.

Figure 16.5 *Internet Radio Stations in Helix Banshee*



Adding a New Internet Radio Station

- 1 Right-click *Radio* in the source list, then click *Add Station*.



- 2 Enter the stream details in the *Add new radio station* dialog box, then click *Save*.

The new station is added to your list.

16.1.5 Listening to Podcasts

Helix Banshee lets you subscribe, download, and listen to your favorite Podcasts. Podcasting is a form of audio blogging where users subscribe to a feed of shows and the shows's episodes are downloaded and managed for offline listening.

Subscribing to a Podcast

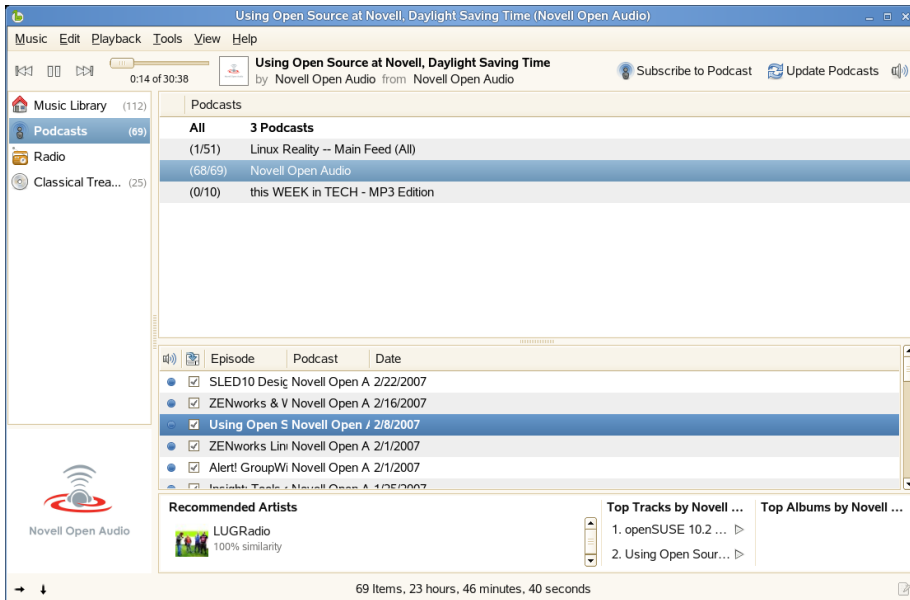
- 1 Click *Music > Subscribe to Podcast*.
- 2 Enter the URL of the podcast you want to subscribe to.
- 3 To specify more options, click *Advanced*, then select what happens when new episodes of this podcast are available.
- 4 Click *Subscribe*.

The new podcast is added to your list.

Listening to a Podcast

To listen to a podcast, select *Podcasts* in the source list, then double-click the podcast you want to listen to.

Figure 16.6 *Podcasts in Helix Banshee*



Use the options on the *Tools > Podcast* menu to update a podcast, subscribe to other podcasts, or find new podcasts.

16.2 Managing Your Music Library

Helix Banshee give you several ways to organize your music. You can create playlists, which allow you to put similar songs together, and you can sort and rate songs. You can also view a variety of information about your music collection, including playback statistics (when a song was last played and how many times).

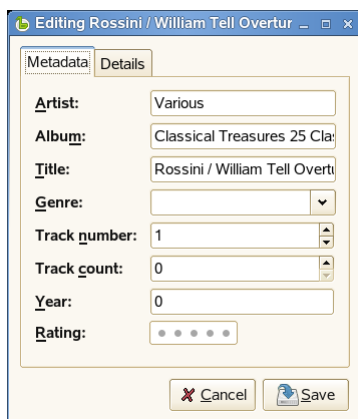
16.2.1 Organizing Your Music

To create a new playlist, click *Music > New Playlist* (or press Ctrl + N). A new playlist is displayed below *Music Library* in the left panel. To rename it, right-click the playlist, select *Rename* and enter the name you want. To fill the new playlist, drag songs from the right-hand side of the window to the respective playlist entry and drop them, or use the options on the *Edit* menu to remove or delete songs and rename or delete playlists.

You can sort a playlist by clicking the title of the column. Click the column again to reverse the sort. You can also right-click *Music Library*, then click *Sort Playlists*.

You can edit the name of the artist, album, and title, as well as the track number and track count. Simply select a song, then click *Edit > Edit Song Metadata*. You can also rate your music, which gives you the ability to play only songs with a certain rating. To rate a song, select the number of stars you want to assign in the *Rating* field.

Figure 16.7 *Editing Song Dialog Box*



If you want to set all fields in a group to the same value, select multiple songs in a playlist, then click *Edit > Edit Song Metadata*. Make the changes you want, then click *Apply common field values to all tracks*. You can also use the *Back* and *Forward* buttons to cycle through the selected songs.

Click the *Details* tab to view detailed information about the selected song, including the bit rate, the sample rate, when a song was last played, when it was imported, how long the song is, and how many times the song has been played.

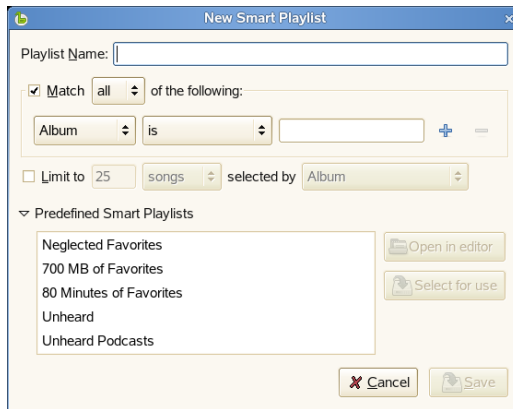
16.2.2 Creating Smart Playlists

You can create playlists that automatically add and remove songs based on criteria you specify. For example, a smart playlist can contain songs you rated as five stars but that you have not listened to for six months. Another smart playlist can contain all songs published in 2006 that you have labeled with the *Classical* genre.

Helix Banshee automatically updates all smart playlists when a change is made to your music library. If you import new songs, Helix Banshee checks to see if they match any of your available smart playlists. When applicable, Helix Banshee also updates your smart playlists if you just listened to a song or updated a song's metadata.

Creating a Smart Playlist

- 1 In Helix Banshee, click *Music > New Smart Playlist*.
- 2 Specify a name for the smart playlist, then select the criteria for songs in this playlist to match.



Use the plus and minus symbols to add or remove criteria. To use an already defined smart playlist, click *Predefined Smart Playlists*, then select the playlist you want.

- 3 Click *Save*. The smart playlist is added to your music library.

Creating a Smart Playlist from a Search

You can create a smart playlist based on search criteria. For example, if you search for all songs in your music library by a certain artist, Helix Banshee can create a smart playlist in which all songs by that artist are selected.

- 1 In Helix Banshee, click *Music > New Smart Playlist from Search*.

- 2 Specify a name for the smart playlist, then specify the search criteria you want.



Use the plus and minus symbols to add or remove criteria.

- 3 Click *Save*. The smart playlist is added to your music library.

16.3 Using Helix Banshee with Your Digital Audio Player

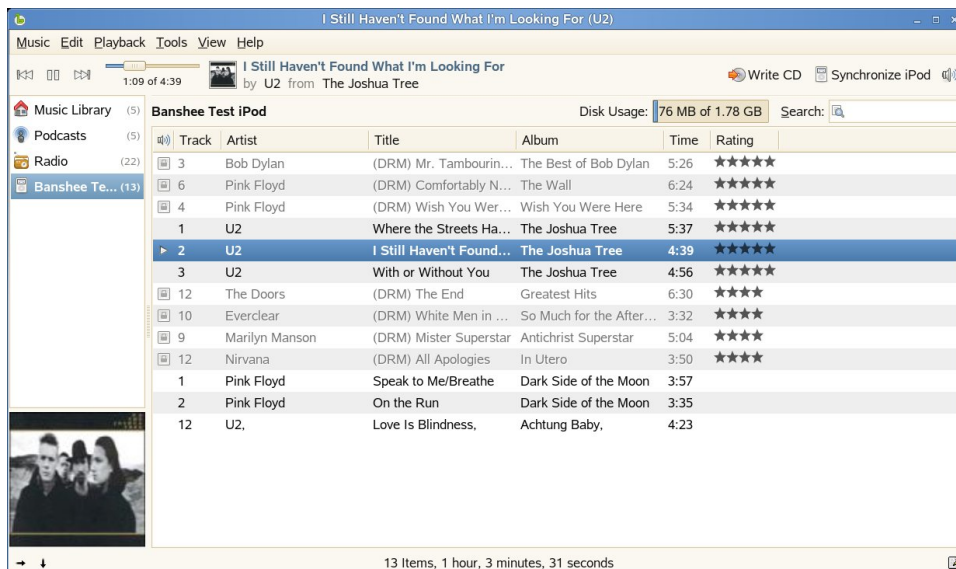
Helix Banshee supports several digital audio players, including Apple iPods, Creative Nomads, and almost any other generic USB Mass Storage player. Instead of having to use separate applications to get support for your audio devices, Helix Banshee gives you easy, integrated support and lets you copy your music to or from your device, no matter what format the music is in.

16.3.1 Playing Music from your Digital Audio Player

To play music from your digital audio player, simply plug your player into your system. After your system recognizes your device, an icon is displayed in the left panel in Helix Banshee.

Select the icon to display the music on your device in the right panel. Double-click the song you want to listen to.

Figure 16.8 *Helix Banshee MP3 Playback from an iPod Mini*



To view or change device properties, right-click your device, then select *Source Properties*. From there, you can view various pieces of information. If you have an iPod, you can update the owner's name.

16.3.2 Adding Music to Your Digital Audio Player

To add tracks to your player, simply drag the tracks you want from your Music Library to your device.

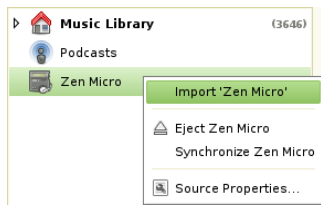
Helix Banshee transparently supports transcoding of your songs for any device. You can have your music library in any number of formats (including, but not limited to, FLAC, Ogg Vorbis, MP3, and AAC), and it will be transparently transcoded before it is sent to your digital audio player.

To remove tracks, select your device in the list of sources, right-click the song you want to delete, then click *Remove Song(s)*.

16.3.3 Copying Music on Your Digital Audio Player to Helix Banshee

Helix Banshee supports importing music from your digital audio player to your music library. Simply drag and drop the songs from your digital audio player to your Music Library and they are copied automatically. You can also import all the music on your digital audio player by right-clicking your player in the source list and selecting *Import*.

Figure 16.9 *Importing Music from Your Digital Audio Player to Helix Banshee*



16.3.4 Synchronizing Your Library

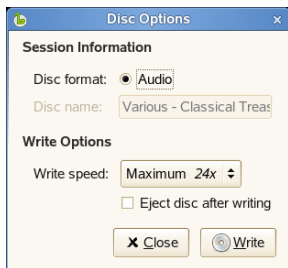
To keep your digital audio player up to date with your Helix Banshee Library, select your player in the source list, then click *Synchronize* in the upper right corner.

Helix Banshee also synchronizes your ratings and cover art in your tracks to your iPod.

16.4 Creating Audio and MP3 CDs

- 1 Insert a blank CD in your CD or DVD drive.
- 2 Select the songs you want to burn, then click the *Write CD* button in the upper right side of Helix Banshee.
- 3 Specify the disk options you want, then click *Write*.

For example, click *Eject disk after writing* if you want Helix Banshee to eject your CD when the writing is completed.



You can track the status of the burn in the bottom left corner of Helix Banshee. A message box appears when the burn is complete.

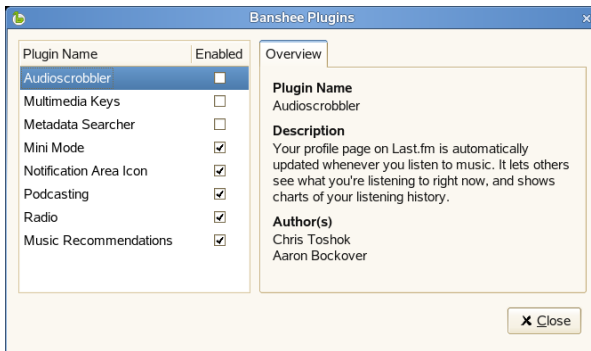
- 4 Click *OK*.

16.5 Sharing Your Music

You can automatically update your online Audioscrobbler [<http://www.last.fm>] profile with the music you listen to in Helix Banshee. This lets others see what you are listening to, and gives you access to charts detailing your listening history. If you join groups such as the Banshee Group [<http://www.last.fm/group/Banshee>], you can also see what other people are listening to.

Before you can share your music, you need to enable the Audioscrobbler plug-in and enable song reporting.

- 1 In Helix Banshee, click *Edit > Plugins*.
- 2 Select the check box to the right of *Audioscrobbler* in the left column.



A *Configuration* tab appears to the right of the *Overview* tab in the right pane. You can also configure Audioscrobbler later by clicking *Tools > Audioscrobbler > Configure*.



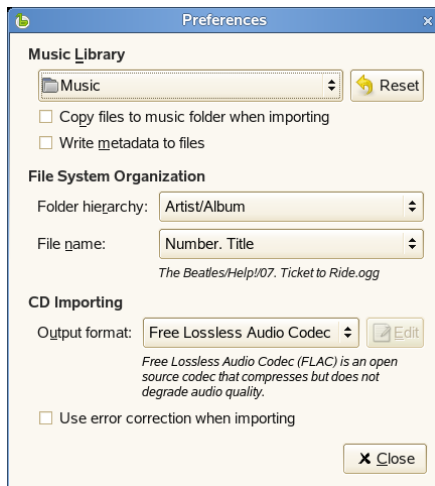
- 3 Click the *Configuration* tab.
- 4 If you have already registered with Last.fm [<http://www.last.fm>], click *Enable song reporting* and specify your Last.fm username and password.

If you have not previously registered with Last.fm, click *Create an account*. This opens the Last.fm Web site where you can register. Click *Enable song reporting* and specify your Last.fm username and password.
- 5 Click *Close*. Helix Banshee starts reporting with the next song you play.

- 6 Click *Close*. After Audioscrobbler is configured, use the options on the *Tools > Audioscrobbler* menu to enable or disable song reporting, visit your user profile Web page, or visit the Web site of any Audioscrobbler groups you belong to.

16.6 Configuring Helix Banshee Preferences

- 1 Click *Edit > Preferences*.



- 2 Choose from the following options:

Music Library

Lets you specify a music folder location. This location is used when you import music. Click *Copy files to music folder when importing* to place a copy of the files you import in your Helix Banshee music folder.

File System Organization

Lets you determine folder hierarchy in the music library, and how filenames are displayed.

CD Importing

Lets you determine encoding profiles for CD ripping. Select the output format you want, then click *Edit* to configure advanced options for that format.

Use error correction when importing

The error correction tries to work around problem areas on a disk, such as surface scratches, but can substantially slow down the time it takes to import.

- 3 Click *Close* to save your changes.

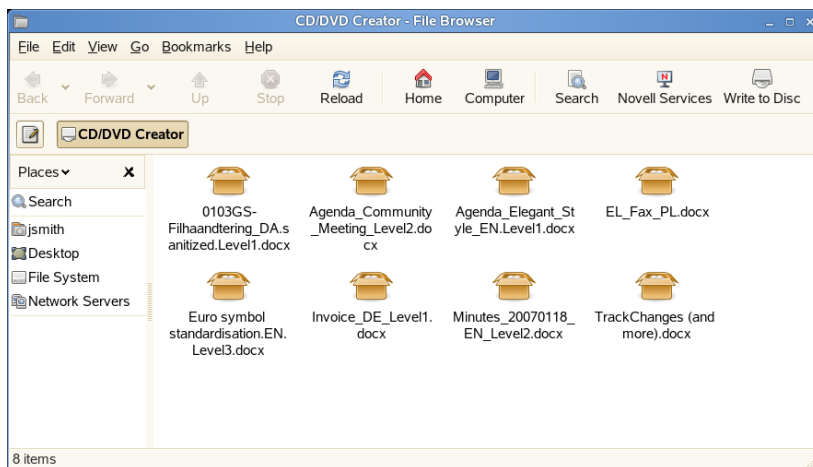
Burning CDs and DVDs

GNOME uses the Nautilus file manager to burn CDs and DVDs. To burn a CD or DVD:

- 1 Click *Computer > More Applications > Audio & Video > GNOME CD/DVD Creator*.

You can also insert a blank disc and click *Make Data CD* or *Make Audio CD*.

- 2 Copy the files you want to put on the CD or DVD into the *CD/DVD Creator* window.



- 3 Click *Write to Disc*.

- 4 Modify information in the *Write to Disc* dialog or accept the defaults, then click *Write*.

The files are burned on the disc. This may take a few minutes, depending on the amount of data being burned and the speed of your burner.

To burn audio and MP3 CDs, you can use the Helix Banshee music player as explained in [Section 16.4, “Creating Audio and MP3 CDs”](#) (page 287).

Finding the Information You Need



To support you in your everyday work with SUSE Linux Enterprise® and to help you explore your Linux system, Novell, SUSE, and the open source community have created a wealth of information. Relevant information is compiled and made available in various formats. You can access detailed documentation provided with your product, as well as additional information over the Internet.

A.1 Included Documentation

There are several places where you can find online documentation shipped with your product. The GNOME desktop includes a help center that offers a wide range of documentation. There, you can access SUSE Linux Enterprise–specific information as well as application descriptions provided by the open source community.

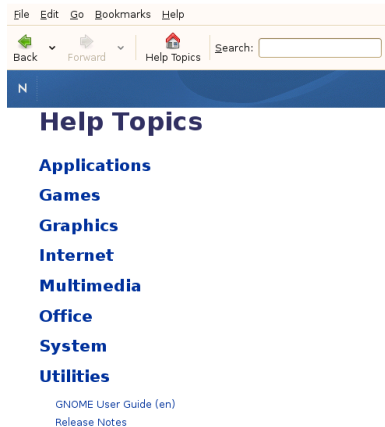
When installing new software with YaST, the software documentation is installed automatically in most cases and usually appears in the help center of your GNOME desktop. However, some applications, such as The GIMP, may have different online help packages that can be installed separately with YaST and do not integrate into the help center.

A.1.1 Using GNOME Yelp

On the GNOME desktop, to start Yelp 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 Yelp from the main 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 Yelp*



The menu and the toolbar provide options for navigating and customizing the help center, for searching and for printing contents from Yelp. To view a table of contents, click *Help Topics*. 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, just enter the search string into the search field at the top of the window.

A.2 Additional Resources and More Information

You can also access the specific manuals and documentation delivered with your product on the Internet at <http://www.novell.com/documentation/sled10>.

If you are searching for additional information, you can also refer to the following Internet sites:

Novell Technical Support Knowledgebase
<http://www.novell.com/support/>

Product Support Community Resources

<http://forums.novell.com/novell-product-support-forums/>

GNOME Documentation Web Site

<http://www.gnome.org/learn/>

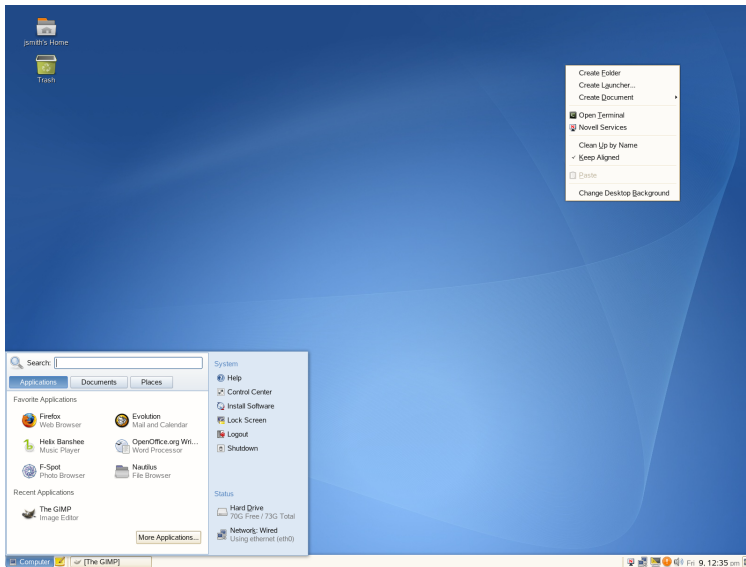
In addition, general-purpose search engines are often helpful. For example, you might try the search terms `Linux CD-RW help` or `OpenOffice file conversion problem`, if you were having trouble with the CD burning or with OpenOffice.org file conversion. Google™ also has a specific Linux search engine at <http://www.google.com/linux> that you might find useful.

Moving from Windows to Linux

B

If you are coming from Microsoft Windows, take a look at how familiar elements of Windows translate to SUSE Linux Enterprise®. After logging in, you will notice that the desktop has a familiar layout and recognizable icons, many of them similar to the Windows and Macintosh desktops.

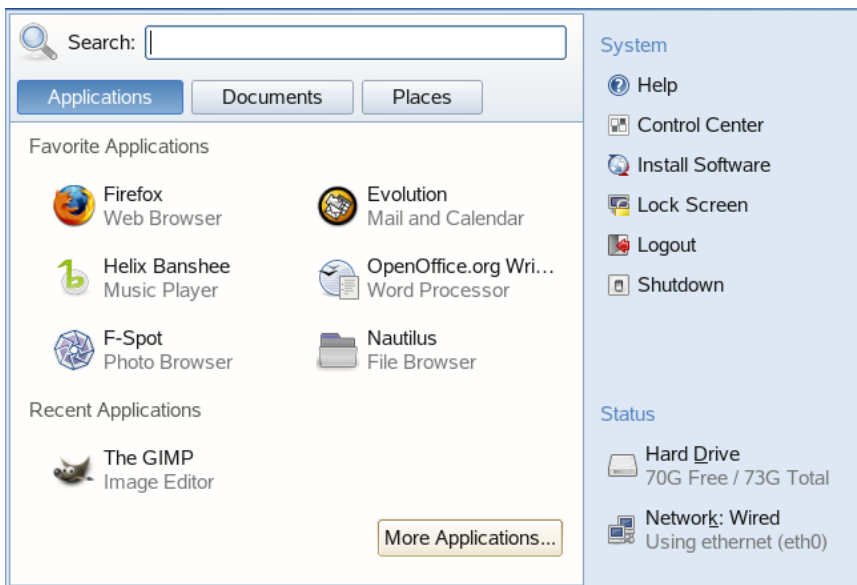
Figure B.1 *GNOME Desktop*



B.1 Starting Applications from the Main Menu

Similar to the Start menu on Windows, you can access all the programs installed on your system from the main menu. To open the menu click *Computer* in the left corner of the panel. Commonly used applications appear in the main menu, along with recently used applications. Click *More Applications* to access additional applications, listed in categories. Find more information about the main menu in [Section 1.4, “Using the Main Menu”](#) (page 12).

Figure B.2 *Main Menu in GNOME*

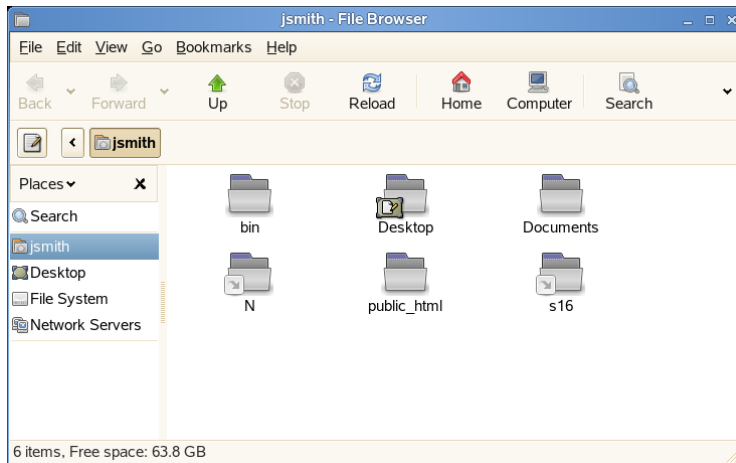


Alternatively, you can also start programs from the command line. Press **Alt + F2** to open a dialog where you can enter a command to start the application. The name of the command is often (but not always) the application name written in lowercase.

B.2 Managing Files

To start the File Manager, click *Computer > Nautilus File Browser*, click your home folder icon on the desktop or press **Alt + F2** and enter `nautilus`.

Figure B.3 *File Manager*

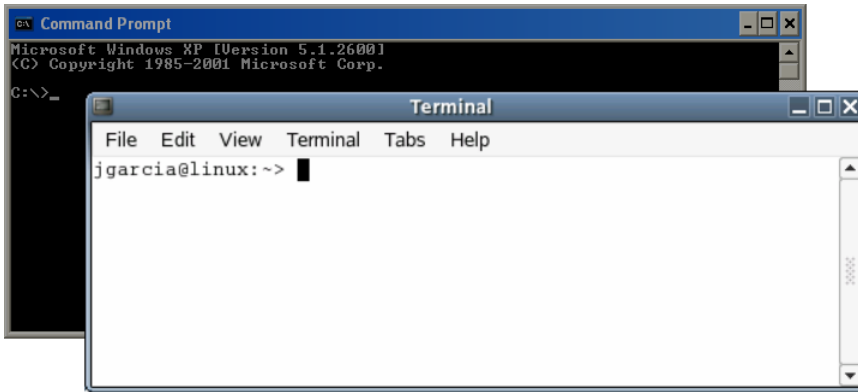


For more information about the File Manager, see [Section 1.5, “Managing Folders and Files with Nautilus”](#) (page 17).

B.3 Using the Command Line

To run commands in a command line environment, similar to a command prompt on Windows, click *Computer > More Applications > System > Gnome Terminal* or press **Alt + F2** and enter `gnome-terminal`.

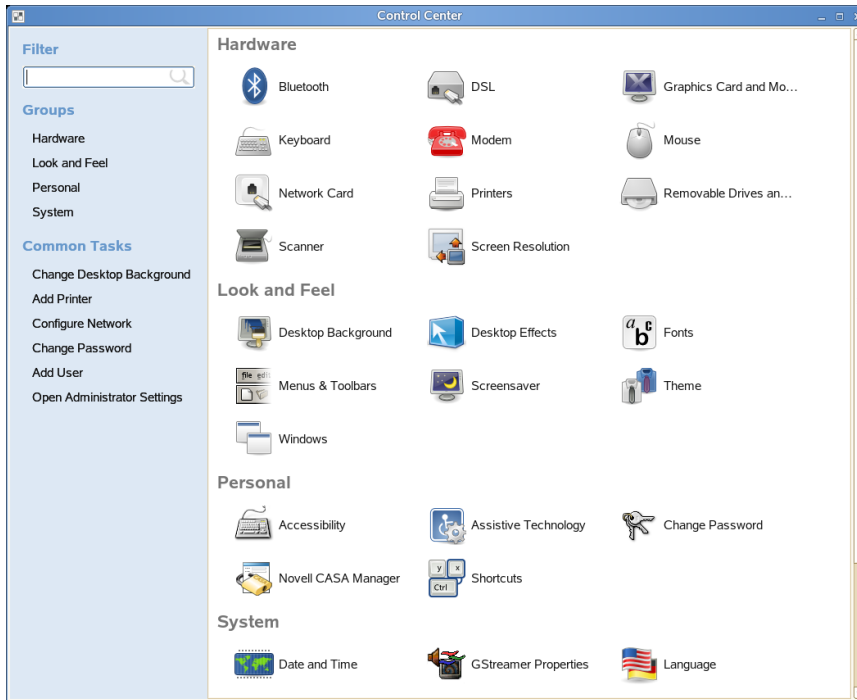
Figure B.4 *Windows Command Prompt and Terminal*



B.4 Customizing Your Desktop

To change to the way your GNOME desktops looks and behaves, click *Computer > Control Center*. Some of the settings you might want to change include the desktop background, screen saver, keyboard and mouse configuration, sounds, and file associations.

Figure B.5 *GNOME Control Center*



For more information, see [Chapter 2, Customizing Your Settings](#) (page 55).

B.5 Switching between Applications

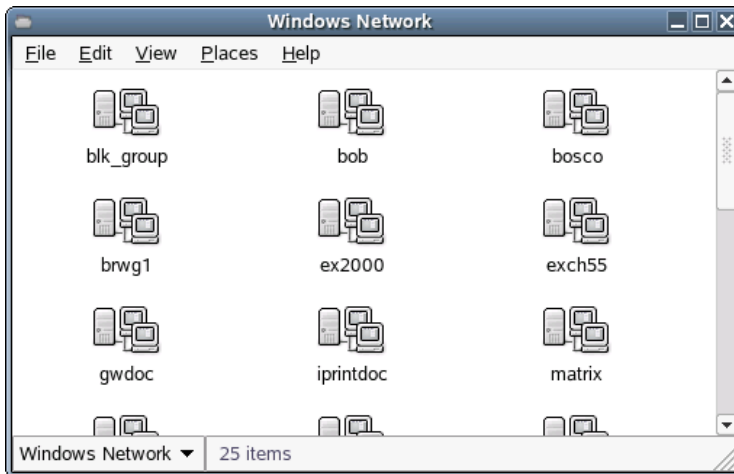
Similar to the taskbar on Windows, the bottom panel in GNOME lets you easily switch between open windows. Switch between them with a single click.

B.6 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 offers various different ways of accessing and creating network-shared resources. Given that the network structure and the configuration of your com-

puter allow for it, you can easily browse your network for shared resources and services with the file manager.

Figure B.6 *GNOME Network Browsing*



To learn more about the various possibilities of accessing network resources, refer to [Section 1.6, “Accessing Network Resources”](#) (page 29).

Getting to Know Linux Software

C

Linux comes with a wealth of applications, often offering more than one solution to specific needs. The difficulty is finding the application that suits your needs best. The next few sections introduce some of the most powerful Linux counterparts of common Windows* software. Each section is dedicated to one particular field of application and presents an overview of the Windows applications and Linux equivalents for several tasks. Below each table, find further information about the Linux applications with links to more information. This list is by no means complete, because software development is an evolutionary process and new applications are being created every minute.

TIP: Missing Applications

Not all applications mentioned below are installed on your system by default and some may not be shipped with your product. If the application you want to use is missing, ask your system administrator. If the application is provided by your product, you can install it with YaST. Use the search function of the YaST software management tool to find the package names.

C.1 Office

This section features the most popular and powerful Linux office and business software solutions. These include office suites, databases, accounting software, and project management software.

Table C.1 *Office Software for Windows and Linux*

Task	Windows Application	Linux Application
Office Suite	Microsoft Office, StarOffice*, OpenOffice.org	OpenOffice.org, StarOffice, KOffice
Word Processor	Microsoft Word, StarOffice/OpenOffice.org Writer, WordPerfect	OpenOffice.org/StarOffice Writer, KWord
Spreadsheet	Microsoft Excel, StarOffice/OpenOffice.org Calc	OpenOffice.org/StarOffice Calc, Gnumeric, KSpread
Presentation	Microsoft PowerPoint*, StarOffice/OpenOffice.org Impress	OpenOffice.org/StarOffice Impress, KPresenter
Data Plotting	Microsoft Excel, MicroCall Origin	OpenOffice.org Calc, Kst, Gnuplot, Grace (Xmgr), LabPlot
Local Database	Microsoft Access, OpenOffice.org Base	OpenOffice.org Base, Rekall, kexi, Mergeant, PostgreSQL
Financial Accounting	Microsoft Money, Quicken	GnuCash, KMyMoney
Project Management	Microsoft Project	Planner, Taskjuggler
Mind Mapping	MindManager, Free Mind	VYM (View Your Mind), Free Mind, KDissert

FreeMind

FreeMind helps you to visualize your thoughts by creating and editing a mind map. You can easily copy nodes or the style of nodes and paste texts from sources such as HTML, RTF, and mails. The mind maps can be exported into various formats,

such as HTML and XML. For more information, refer to http://freemind.sourceforge.net/wiki/index.php/Main_Page.

GnuCash

GnuCash is a software tool to control both your personal and business finances. Learn more about GnuCash at <http://www.gnucash.org>.

Gnumeric

Gnumeric is a spreadsheet solution for the GNOME desktop environment. Find more information about Gnumeric at <http://www.gnumeric.org>.

Gnuplot

Gnuplot is a very powerful and portable command line-controlled data plotting software. It is also available for MacOS and Windows platforms. Plots created by Gnuplot can be exported to various formats, such as PostScript, PDF, and SVG, allowing you to process these plots easily. Find more information about Gnuplot at <http://www.gnuplot.info/index.html>.

Grace

Grace is a very mature 2D plotting tool for almost all flavors of Unix including Linux. Create and edit plots with a graphical user interface. Grace supports an unlimited number of graphs per plot. Its export formats include JPEG, PNG, SVG, PDF, PS, and EPS. Find more information at <http://plasma-gate.weizmann.ac.il/Grace/>.

Kdissert

Kdissert is an application for structuring ideas and concepts, mostly aimed at students but also helpful for teachers, decision makers, engineers, and businessmen. Ideas are first laid down on a canvas then associated into a tree. You can generate various outputs from the mind map, such as PDF files, text documents (also for OpenOffice.org Writer), and HTML files. Find more information at <http://freehackers.org/~tnagy/kdissert/>.

Kexi

See **KOffice** (page 308).

KMyMoney

KMyMoney is a personal finance manager for KDE. It enables users of open source operating systems to keep track of their personal finances by providing a broad

array of financial features and tools. Learn more about KMyMoney at <http://kmymoney2.sourceforge.net>.

KOffice

KOffice is an integrated office suite for the KDE desktop. It comes with various modules like word processing (KWord), spreadsheets (KSpread), presentations (KPresenter), several image processing applications (Kivio, Karbon14, Krita), a database front-end (Kexi), and many more. Find more information about KOffice at <http://www.koffice.org/>.

KPresenter

See **KOffice** (page 308).

Kst

Kst is a KDE application for real-time data viewing and plotting with basic data analysis functionality. Kst contains many powerful built-in features, such as robust plotting of live streaming data, and is expandable with plug-ins and extensions. Find more about Kst at <http://kst.kde.org/>.

KWord

See **KOffice** (page 308).

LabPlot

LabPlot is a program for creating and managing two or three-dimensional data plots. Graphs can be produced both from data and functions and one plot might include multiple graphs. It also offers various data analysis methods. Find more information about LabPlot at <http://labplot.sourceforge.net/>.

Mergeant

Mergeant is a database front-end for the GNOME desktop. Find more information at <http://www.gnome-db.org>.

OpenOffice.org

OpenOffice.org is the open source equivalent of Microsoft Office. It is a very powerful office suite including a word processor (Write), a spreadsheet (Calc), a database manager (Base), a presentation manager (Impress), a drawing program (Draw), and a formula editor for generating mathematical equations and formulas (Math). Users familiar with the Microsoft Office family of applications find a very similar application interface and all the functionality to which they are accustomed. Because OpenOffice.org is capable of importing data from Microsoft Office applications, the transition from one office suite to the other is very smooth. A Windows

version of OpenOffice.org even exists, enabling Windows users to switch to an open source alternative while still using Windows. Find more information about OpenOffice.org at <http://www.openoffice.org/> and read our OpenOffice.org chapter for a short introduction to the office suite.

Planner

Planner is a project management tool for the GNOME desktop aiming to provide functionality similar to the project management tools used under Windows. Among its various features are Gantt charting abilities and different kinds of views of tasks and resources. Find more information about Planner at <http://www.imendio.com/projects/planner/>.

PostgreSQL

PostgreSQL is an object-relational database management system that supports an extended subset of the SQL standard, including transactions, foreign keys, subqueries, triggers, and user-defined types and functions. Find more information about PostgreSQL at <http://www.postgresql.org/>.

Rekall

Rekall is a tool for manipulating databases. Supported databases include MySQL, PostgreSQL, XBase with XBSQL, IBM DB2, and ODBC. Use Rekall to generate different sorts of reports and forms, design database queries, or import and export data to various formats. Find more information about Rekall at <http://www.thekompany.com/products/rekall/>.

StarOffice

StarOffice is a proprietary version of OpenOffice.org and is distributed by Sun Microsystems. It is available on multiple platforms including Windows and Solaris. It includes certain advanced features not available with the free version (OpenOffice.org). Find more information about StarOffice at <http://www.sun.com/software/star/staroffice/>.

Taskjuggler

Taskjuggler is a lean, but very powerful project management software. Take control of your projects using the Gantt charting features or by generating all kinds of reports (in XML, HTML, or CSV format). Those users who are not comfortable with controlling applications from the command line can use a graphical front-end to Taskjuggler. Find more information about Taskjuggler at <http://www.taskjuggler.org>.

VYM (View Your Mind)

VYM is a software for visualizing your thoughts by creating and manipulating mind maps. Most manipulations do not require more than one mouse click.

Branches can be inserted, deleted, and reordered very easily. VYM also offers a set of flags allowing you to mark certain parts of the map (important, time critical, etc.). Links, notes, and images can be added to a mind map as well. VYM mind maps use an XML format, allowing you to export your mind maps to HTML easily. Find more information about VYM at <http://www.insilmaril.de/vym>.

C.2 Network

The following section features various Linux applications for networking purposes. Get to know the most popular Linux browsers and e-mail and chat clients.

Table C.2 *Network Software for Windows and Linux*

Task	Windows Application	Linux Application
Web Browser	Internet Explorer, Firefox*, Opera	Konqueror, Firefox, Opera, Epiphany
E-Mail Client/Personal Information Management	Microsoft Outlook*, Lotus Notes, Mozilla Thunderbird*	Evolution, Kontact, Mozilla Thunderbird
Instant Messaging/IRC Clients	MSN, AIM*, Yahoo!*, Messenger, XChat, Gaim	Gaim, Kopete, Konversation, XChat
Conferencing (Video and Audio)	NetMeeting	Ekiga (formerly named GnomeMeeting)
Voice over IP	X-Lite	Linphone, Skype
FTP Clients	leechftp, wsftp	gftp, kbear

Epiphany

Epiphany is a lean, but powerful Web browser for the GNOME desktop. Many of its features and extensions resemble Firefox. Find more information about Epiphany at <http://www.gnome.org/projects/epiphany/>.

Evolution

Evolution is personal information management software for the GNOME desktop combining mail, calendar, and address book functionality. It offers advanced e-mail filter and search options, provides sync functionality for Palm devices, and allows you to run Evolution as an Exchange or GroupWise® client to integrate better into heterogeneous environments. Find more information about Evolution at <http://www.gnome.org/projects/evolution/>.

Firefox

Firefox is the youngest member of the Mozilla browser family. It runs on various platforms, including Linux, MacOS, and Windows. Its main features include built-in customizable searches, pop-up blocking, RSS news feeds, password management, tabbed browsing, and some advanced security and privacy options. Firefox is very flexible, allowing you to customize almost anything you want (searches, toolbars, skins, buttons, etc.). Neat add-ons and extensions can be downloaded from the Firefox Web site (<https://addons.update.mozilla.org/?application=firefox>). Find more information about Firefox at <http://www.mozilla.org/products/firefox/>. You can also read our Firefox chapter in *KDE User Guide* or *GNOME User Guide*.

Gaim

Gaim is a smart instant messenger program supporting multiple protocols, such as AIM and ICQ (Oscar protocol), MSN Messenger, Yahoo!*, IRC, Jabber, SILC, and GroupWise Messenger®. It is possible to log in to different accounts on different IM networks and chat on different channels simultaneously. Gaim also exists in a Windows version. Recently, Gaim has been renamed to Pidgin. Find more information about Pidgin at <http://www.pidgin.im/>.

gftp

gftp is an FTP client using the GTK toolkit. Its features include simultaneous downloads, resume of interrupted file transfers, file transfer queues, download of entire directories, FTP proxy support, remote directory caching, passive and non-passive file transfers, and drag and drop support. Find more information at <http://gftp.seul.org>.

kbear

KBear is a KDE FTP client with the ability to have concurrent connections to multiple hosts, three separate view modes, support for multiple protocols (like FTP and SFTP), a site manager plug-in, firewall support, logging capabilities, and much more. Find more information at <http://sourceforge.net/projects/kbear>.

Konqueror

Konqueror is a multitasking application created by the KDE developers. It acts as file manager and document viewer, but is also a very powerful and highly customizable Web browser. It supports the current Web standards, such as CSS(2), Java applets, JavaScript and Netscape plug-ins (Flash and RealVideo), DOM, and SSL. It offers neat helpers like an integrated search bar and supports tabbed browsing. Bookmarks can be imported from various other Web browsers, like Internet Explorer, Mozilla, and Opera. Find more information about Konqueror at <http://www.konqueror.org/>. You can also read our chapter about Konqueror as a Web browser in *KDE User Guide*.

Kontakt

Kontakt is the KDE personal information management suite. It includes e-mail, calendar, address book, and Palm sync functions. Like Evolution, it can act as an Exchange or GroupWise client. Kontakt combines several stand-alone KDE applications (KMail, KAddressbook, KOrganizer, and KPilot) to form an entity providing all the PIM functionality you need. Find more information about Kontakt at <http://www.kontakt.org/>. You can also read our introduction to Kontakt in *KDE User Guide*.

Konversation

Konversation is an easy-to-use IRC client for KDE. Its features include support for SSL connections, strikeout, multichannel joins, away and unaway messages, ignore list functionality, Unicode, autoconnect to a server, optional time stamps in chat windows, and configurable background colors. Find more information about Konversation at <http://konversation.kde.org>.

Kopete

Kopete is a very intuitive and easy-to-use instant messenger tool supporting protocols including IRC, ICQ, AIM, GroupWise Messenger, Yahoo, MSN, Gadu-Gadu, Lotus Sametime, SMS messages, and Jabber. Find more information about Kopete at <http://kopete.kde.org/>. You can also read an introduction to Kopete in *KDE User Guide*.

Linphone

Linphone is a smart and lean Voice over IP client using the SIP protocol to establish calls. Find more information at <http://www.linphone.org/>. You can also read our Linphone chapter.

Mozilla Thunderbird

Thunderbird is an e-mail client application that comes as part of the Mozilla suite. It is also available for Microsoft Windows and MacOS, which facilitates the transition from one of these operating systems to Linux. Find more information about Mozilla Thunderbird at <http://www.mozilla.org/products/thunderbird/>.

Opera

Opera is a powerful Web browser with neat add-ons like an optional e-mail client and a chat module. Opera offers pop-up blocking, RSS feeds, built-in and customizable searches, a password manager, and tabbed browsing. The main functions are easily reached through their respective panels. Because this tool is also available for Windows, it allows a much easier transition to Linux for those who have been using it under Windows. Find more information about Opera at <http://www.opera.com/>.

Skype

Skype is an application for several platforms (Linux, Windows, Mac Os X) that can be used for phone calls over the Internet with a good sound quality and with end-to-end encryption. When using Skype, configuring the firewall or router is not necessary. For more information, refer to <http://www.skype.com/>.

XChat

XChat is an IRC client that runs on most Linux and UNIX platforms as well as under Windows and MacOS X. Find more information about XChat at <http://www.xchat.org/>.

C.3 Multimedia

The following section introduces the most popular multimedia applications for Linux. Get to know media players, sound editing solutions, and video editing tools.

Table C.3 *Multimedia Software for Windows and Linux*

Task	Windows Application	Linux Application
Audio CD Player	CD Player, Winamp, Windows Media Player	KsCD, Grip, Helix Banshee
CD Burner	Nero, Roxio Easy CD Creator	K3b
CD Ripper	WMPowerPlayer	kaudiocreator, Sound Juicer, Helix Banshee
Audio Player	Winamp, Windows Media Player, iTunes	amaroK, XMMS, Rhythmbox, Helix Banshee
Video Player	Winamp, Windows Media Player	Kaffeine, MPlayer, Xine, XMMS, Totem, RealPlayer
Audio Editor	SoundForge, Cooledit, Audacity	Audacity
Sound Mixer	sndvol32	alsamixer, Kmix
Music Notation	Finale, SmartScore, Sibelius	LilyPond, MuseE, Notedit, Rosegarden
Video Creator and Editor	Windows Movie Maker, Adobe Premiere, Media Studio Pro, MainActor	MainActor, Kino
TV Viewer	AVerTV, PowerVCR 3.0, CinePlayer DVR	xawtv (analog), motv (analog), xawtv4, tvtime, kdetv, zapping, Kaffeine

amaroK

The amaroK media player handles various audio formats and plays the streaming audio broadcasts of radio stations on the Internet. The program handles all file types supported by the sound server acting as a back-end—currently aRts or

GStreamer. Find more information about amaroK at <http://amarok.kde.org/>. You can also read the introduction to amaroK in *KDE User Guide*.

Audacity

Audacity is a powerful, free sound editing tool. Record, edit, and play any Ogg Vorbis or WAV file. Mix tracks, apply effects to them, and export the results to WAV or Ogg Vorbis. Find more information about Audacity at <http://audacity.sourceforge.net/>.

Helix Banshee

Helix Banshee is a music management and playback application for the GNOME desktop. With Helix Banshee, import CDs, sync your music collection to an iPod, play music directly from an iPod, create playlists with songs from your library, and create audio and MP3 CDs from subsets of your library. For more information, refer to our introduction in *GNOME User Guide*.

Grip

Grip provides CD player functions for the GNOME desktop. It supports CDDb lookups for track and album data. Find more information at <http://www.nostatic.org/grip/>.

Kaffeine

Kaffeine is a versatile multimedia application supporting a wide range of audio and video formats including Ogg Vorbis, WMV, MOV, and AVI. Import and edit play lists of various types, create screen shots, and save media streams to your local hard disk. Find more information about Kaffeine at <http://kaffeine.kde.org/>.

KAudioCreator

KAudioCreator is a lean CD ripper application. If configured accordingly, KAudioCreator also generates playlist files for your selection that can be used by players like amaroK, XMMS, or Helix Banshee. Read more about using KAudioCreator in *KDE User Guide* or go to <http://www.icefox.net/programs/?program=KAudioCreator>.

kdetv

A TV viewer and recorder application for the KDE desktop supporting analog TV. Find more information about kdetv at <http://kde-apps.org/content/show.php?content=11602>.

KsCD

KsCD is a neat little CD player application for the KDE desktop. Its user interface very much resembles that of a normal hardware CD player, guaranteeing ease of use. KsCD supports CDDDB, enabling you to get any track and album information from the Internet or your local file system. Find more information at <http://docs.kde.org/en/3.3/kdemultimedia/kscd/>.

K3b

K3b is a multitalented media creation tool. Create data, audio, or video CD and DVD projects by dragging and dropping. Find more information about K3b at <http://www.k3b.org/>. You can also refer to our K3b chapter.

LilyPond

LilyPond is a free music sheet editor. Because the input format is text-based, you can use any text editor to create note sheets. Users do not need to tackle any formatting or notation issues, like spacing, line-breaking, or polyphonic collisions. All these issues are automatically resolved by LilyPond. It supports many special notations like chord names and tablatures. The output can be exported to PNG, TeX, PDF, PostScript, and MIDI. Find more information about LilyPond at <http://lilypond.org/web/>.

MainActor

MainActor is a fully fledged video authoring software. Because there is a Windows version of MainActor, transition from Windows is easy. Find more information about MainActor at <http://www.mainactor.com/>.

MPlayer

MPlayer is a movie player that runs on several systems. Find more information about MPlayer at <http://www.mplayerhq.hu/homepage/design7/info.html>.

MusE

MusE's goal is to be a complete multitrack virtual studio for Linux. Find more information about MusE at <http://www.muse-sequencer.org/index.php>.

Noteedit

Noteedit is a powerful score editor for Linux. Use it to create sheets of notes and to export and import scores to and from many formats, such as MIDI, MusicXML

and LilyPond. Find more information about Notoedit at <http://developer.berlios.de/projects/notedit/>.

Rhythmbox

Rhythmbox is a powerful, multitalented media player for the GNOME desktop. It allows you to organize and browse your music collection using playlists and even supports Internet radio. Find more information about Rhythmbox at <http://www.gnome.org/projects/rhythmbox/>.

Rosegarden

Rosegarden is a free music composition and editing environment. It features an audio and MIDI sequencer and a score editor. Find more information about Rosegarden at <http://rosegardenmusic.com/>.

Sound Juicer

Sound Juicer is a lean CD ripper application for the GNOME desktop. Find more information about Sound Juicer at <http://www.burtonini.com/blog/computers/sound-juicer>.

Totem

Totem is a movie player application for the GNOME desktop. It supports Shoutcast, m3u, asx, SMIL, and ra playlists, lets you use keyboard controls, and plays a wide range of audio and video formats. Find more information about Totem at <http://www.gnome.org/projects/totem/>.

tvtime

tvtime is a lean TV viewer application supporting analog TV. Find more information about tvtime, including a comprehensive usage guide, at <http://tvtime.sourceforge.net/>.

xawtv and motv

xawtv is a TV viewer and recorder application supporting analog TV. motv is basically the same as xawtv, but with a slightly different user interface. Find more information about the xawtv project at <http://linux.bytesex.org/xawtv/>.

xawtv4

xawtv4 is a successor of the xawtv application. It supports both analog and digital audio and video broadcasts. For more information, refer to <http://linux.bytesex.org/xawtv/>.

Xine

Xine is a multimedia player that plays CDs, DVDs, and VCDs. It interprets many multimedia formats. For more information, refer to <http://xinehq.de/>.

XMMS

XMMS is the traditional choice for multimedia playback. It is focused on music playback, offering support for CD playback and Ogg Vorbis files. Users of Winamp should find XMMS comfortable because of its similarity. Find more information about XMMS at <http://www.xmms.org/>.

zapping

A TV viewer and recorder application for the GNOME desktop supporting analog TV. Find more information about Zapping at <http://zapping.sourceforge.net/Zapping/index.html>.

C.4 Graphics

The following section presents some of the Linux software solutions for graphics work. These include simple drawing applications as well as fully-fledged image editing tools and powerful rendering and animation programs.

Table C.4 *Graphics Software for Windows and Linux*

Task	Windows Application	Linux Application
Simple Graphic Editing	Microsoft Paint	KolourPaint
Professional Graphic Editing	Adobe Photoshop, Paint Shop Pro, Corel PhotoPaint, The GIMP	The GIMP, Krita
Creating Vector Graphics	Adobe Illustrator, CorelDraw, OpenOffice.org Draw, Freehand	OpenOffice.org Draw, Inkscape, Dia
SVG Editing	WebDraw, Freehand, Adobe Illustrator	Inkscape, Dia, Kivio

Task	Windows Application	Linux Application
Creating 3D Graphics	3D Studio MAX, Maya, POV-Ray, Blender	POV-Ray, Blender, KPovmodeler
Managing Digital Photographs	Software provided by the camera manufacturer	DigiKam, f-spot
Scanning	Vuescan	Vuescan, The GIMP
Image Viewing	ACDSee	gwenview, gThumb, Eye of Gnome, f-spot

Blender

Blender is a powerful rendering and animation tool available on many platforms, including Windows, MacOS, and Linux. Find more information about Blender at <http://www.blender3d.com/>.

Dia

Dia is a Linux application aiming to be the Linux equivalent of Visio. It supports many types of special diagrams, such as network or UML charts. Export formats include SVG, PNG, and EPS. To support your own custom diagram types, provide the new shapes in a special XML format. Find more information about Dia at <http://www.gnome.org/projects/dia/>.

DigiKam

DigiKam is a smart digital photo management tool for the KDE desktop. Importing and organizing your digital images is a matter of a few clicks. Create albums, add tags to spare you from copying images around different subdirectories, and eventually export your images to your own Web site. Find more information about DigiKam at <http://www.digikam.org/>. You can also refer to our DigiKam chapter in *KDE User Guide*.

Eye of Gnome (eog)

Eye of Gnome is an image viewer application for the GNOME desktop. Find more information at <http://www.gnome.org/projects/eog/>.

f-spot

f-spot is a flexible digital photograph management tool for the GNOME desktop. It lets you create and manage albums and supports various export options like HTML pages or burning of image archives to CD. You can also use it as an image viewer on the command line. Find more information about f-spot at <http://www.gnome.org/projects/f-spot/>. You can also refer to our chapter in *GNOME User Guide*.

gThumb

gThumb is an image viewer, browser, and organizer for the GNOME desktop. It supports the import of your digital images via gphoto2, allows you to carry out basic transformation and modifications, and lets you tag your images to create albums matching certain categories. Find more information about gThumb at <http://gthumb.sourceforge.net/>.

Gwenview

Gwenview is a simple image viewer for KDE. It features a folder tree window and a file list window that provides easy navigation of your file hierarchy. Find more information at <http://gwenview.sourceforge.net/home/>.

Inkscape

Inkscape is a free SVG editor. Users of Adobe Illustrator, Corel Draw, and Visio can find a similar range of features and a familiar user interface in Inkscape. Among its features, find SVG-to-PNG export, layering, transforms, gradients, and grouping of objects. Find more information about Inkscape at <http://www.inkscape.org/>.

Kivio

Kivio is a flow-charting application that integrates into the KOffice suite. Former users of Visio find a familiar look and feel in Kivio. Find more information about Kivio at <http://www.koffice.org/kivio/>.

KolourPaint

KolourPaint is an easy-to-use paint program for the KDE desktop. You can use it for tasks such as painting or drawing diagrams and editing screen shots, photos, and icons. For more information, refer to <http://kolourpaint.sourceforge.net/>.

KPovmodeler

KPovmodeler is a POV-Ray front-end that integrates with the KDE desktop. KPovmodeler saves users from needing a detailed knowledge of POV-Ray scripting by translating the POV-Ray language in an easy-to-understand tree view. Native POV-Ray scripts can be imported to KPovmodeler as well. Find more information at <http://www.kpovmodeler.org>.

Krita

Krita is KOffice's answer to Adobe Photoshop and The GIMP. It can be used for pixel-based image creation and editing. Its features include many of the advanced image editing capabilities you would normally expect with Adobe Photoshop or The GIMP. Find more information at <http://www.koffice.org/krita>.

OpenOffice.org Draw

See [OpenOffice.org](http://www.openoffice.org) (page 308).

POV-Ray

The Persistence of Vision Raytracer creates three-dimensional, photo-realistic images using a rendering technique called ray tracing. Because there is a Windows version of POV-Ray, it does not take much for Windows users to switch to the Linux version of this application. Find more information about POV-Ray at <http://www.povray.org/>.

The GIMP

The GIMP is the open source alternative to Adobe Photoshop. Its feature list rivals that of Photoshop, so it is well suited for professional image manipulation. There is even a Windows version of GIMP available. Find more information at <http://www.gimp.org/>. You can also refer to our GIMP chapter.

VueScan

VueScan is a scanning software available for several platforms. You can install it parallel to your vendor's scanner software. It supports the scanner's special hardware, like batch scanning, autofocus, infrared channels for dust and scratch suppression, and multiscan to reduce scanner noise in the dark areas of slides. It features simple and accurate color correction from color negatives. Find out more at <http://www.hamrick.com/index.html>.

C.5 System and File Management

The following section provides an overview of Linux tools for system and file management. Get to know text and source code editors, backup solutions, and archiving tools.

Table C.5 *System and File Management Software for Windows and Linux*

Task	Windows Application	Linux Application
File Manager	Windows Explorer	Konqueror, Nautilus
Text Editor	NotePad, WordPad, (X)Emacs	kate, GEdit, (X)Emacs, vim
PDF Creator	Adobe Distiller	Scribus
PDF Viewer	Adobe Reader	Adobe Reader, Evince, KPDF, Xpdf
Text Recognition	Recognita, FineReader	GOOCR
Command Line Pack Programs	zip, rar, arj, lha, etc.	zip, tar, gzip, bzip2, etc.
GUI Based Pack Programs	WinZip	Ark, File Roller
Hard Disk Partitioner	PowerQuest, Acronis, Partition Commander	YaST, GNU Parted
Backup Software	ntbackup, Veritas	KDar, taper, dump

Adobe Reader

Adobe Reader for Linux is the exact counterpart of the Windows and Mac versions of this application. The look and feel on Linux are the same as on other platforms. The other parts of the Adobe Acrobat suite have not been ported to Linux. Find more information at <http://www.adobe.com/products/acrobat/readermain.html>.

Ark

Ark is a GUI-based pack program for the KDE desktop. It supports common formats, such as `zip`, `tar.gz`, `tar.bz2`, `lha`, and `rar`. You can view, select, pack, and unpack single files within an archive. Due to Ark's integration with Konqueror, you can also trigger actions (such as unpacking an archive) from the context menu in the file manager, similar to WinZip. For a short introduction to using Ark, refer to our KDE desktop chapter in *KDE User Guide*.

dump

The dump package contains both `dump` and `restore`. `dump` examines files in a file system, determines which ones need to be backed up, and copies those files to a specified disk, tape, or other storage medium. The `restore` command performs the inverse function of `dump`—it can restore a full backup of a file system. Find more information at <http://dump.sourceforge.net/>.

Evince

Evince is a document viewer for PDF and PostScript formats for the GNOME desktop. Find more information at <http://www.gnome.org/projects/evince/>.

File Roller

File Roller is a GUI-based pack program for the GNOME desktop. It provides features similar to Ark's. For more information, refer to <http://fileroller.sourceforge.net/home.html>.

GEdit

GEdit is the official text editor of the GNOME desktop. It provides features similar to Kate's. Find more information at <http://www.gnome.org/projects/gedit/>.

GNU Parted

GNU Parted is a command line tool for creating, destroying, resizing, checking, and copying partitions and the file systems on them. If you need to create space for new operating systems, use this tool to reorganize disk usage and copy data between different hard disks. Find more information at <http://www.gnu.org/software/parted/>.

GOCR

GOCR is an OCR (optical character recognition) tool. It converts scanned images of text into text files. Find more information at <http://jocr.sourceforge.net/>.

gzip, tar, bzip2

There are plenty of packaging programs for reducing disk usage. In general, they differ only in their pack algorithm. Linux can also handle the packaging formats used on Windows. `bzip2` is a bit more efficient than `gzip`, but needs more time, depending on the pack algorithm. Find more information about `gzip` and `tar` in our shell chapter.

kate

Kate is part of the KDE suite. It has the ability to open several files at once either locally or remotely. With syntax highlighting, project file creation, and external scripts execution, it is a perfect tool for a programmer. Find more information at <http://kate.kde.org/>.

KDar

Kerr stands for KDE disk archiver and is a hardware-independent backup solution. KDar uses catalogs (unlike `tar`), so it is possible to extract a single file without reading the whole archive and it is also possible to create incremental backups. KDar can split an archive into multiple slices and trigger the burning of a data CD or DVD for each slice. Find more information about KDar at <http://kdar.sourceforge.net/>.

Konqueror

Konqueror is the default file manager for the KDE desktop, which can also be used as a Web browser, document and image viewer, and CD ripper. For an introduction to using Konqueror as a file manager, see our chapters about the KDE desktop in *KDE User Guide*. Find more information about this multifunctional application at <http://www.konqueror.org/>.

KPDF

KPDF is a PDF viewing application for the KDE desktop. Its features include searching the PDF and full screen reading mode like in Adobe Reader. Find more information at <http://kpdf.kde.org/>.

Nautilus

Nautilus is the default file manager of the GNOME desktop. It can be used to create folders and documents, display and manage your files and folders, run scripts, write data to a CD, and open URI locations. For an introduction to using Nautilus as a file manager, see *GNOME User Guide*. Find information about Nautilus on the Internet at <http://www.gnome.org/projects/nautilus/>.

taper

Taper is a backup and restore program that provides a friendly user interface to allow backup and restoration of files to and from a tape drive. Alternatively, files can be backed up to archive files. Recursively selected directories are supported. Find more information at <http://taper.sourceforge.net/>.

vim

vim (vi improved) is a program similar to the text editor vi. Users may need time to adjust to vim, because it distinguishes between command mode and insert mode. The basic features are the same as in all text editors. vim offers some unique options, like macro recording, file format detection and conversion, and multiple buffers in a screen. Find more information at <http://www.vim.org/>.

(X)Emacs

GNU Emacs and XEmacs are very professional editors. XEmacs is based on GNU Emacs. To quote the GNU Emacs Manual, “Emacs is the extensible, customizable, self-documenting real-time display editor.” Both offer nearly the same functionality with minor differences. Used by experienced developers, they are highly extensible through the Emacs Lisp language. They support many languages, like Russian, Greek, Japanese, Chinese, and Korean. Find more information at <http://www.xemacs.org/> and <http://www.gnu.org/software/emacs/emacs.html>.

Xpdf

Xpdf is lean PDF viewing suite for Linux and Unix platforms. It includes a viewer application and some export plug-ins for PostScript or text formats. Find more information at <http://www.foolabs.com/xpdf/>.

C.6 Software Development

This section introduces Linux IDEs, toolkits, development tools, and versioning systems for professional software development.

Table C.6 *Development Software for Windows and Linux*

Task	Windows Application	Linux Application
Integrated Development Environments	Borland C++, Delphi, Visual Studio, .NET	KDevelop, Eric, Eclipse, MonoDevelop, Anjuta
Toolkits	MFC, Qt, GTK+	Qt, GTK+
Compilers	VisualStudio	GCC
Debugging Tools	Visual Studio	GDB, valgrind
GUI Design	Visual Basic, Visual C++	Glade, Qt Designer
Versioning Systems	Cleartcase, Perforce, Source-Safe	CVS, Subversion

Anjuta

Anjuta is an IDE for GNOME/GTK+ application development. It includes an editor with automated formatting, code completion, and highlighting. As well as GTK+, it supports Perl, Pascal, and Java development. A GDB-based debugger is also included. Find more information about Anjuta at <http://anjuta.sourceforge.net>.

CVS

CVS, the Concurrent Versions System, is one of the most important version control systems for open source. It is a front-end to the Revision Control System (RCS) included in the standard Linux distributions. Find more information at <http://ximbiot.com/cvs/wiki/>.

Eclipse

The Eclipse Platform is designed for building integrated development environments that can be extended with custom plug-ins. The base distribution also contains a

full-featured Java development environment. Find more information at <http://www.eclipse.org>.

Eric

Eric is an IDE optimized for Python and Python-Qt development. Find more information about Eric at <http://www.die-offenbachs.de/eric/index.html>.

GCC

GCC is a compiler collection with front-ends for various programming languages. Check out a complete list of features and find extensive documentation at <http://gcc.gnu.org>.

GDB

GDB is a debugging tool for programs written in various programming languages. Find more information about GDB at <http://www.gnu.org/software/gdb/gdb.html>.

Glade

Glade is a user interface builder for GTK+ and GNOME development. As well as GTK+ support, it offers support for C, C++, C#, Perl, Python, Java, and others. Find more information about Glade at <http://glade.gnome.org/>.

GTK+

GTK+ is a multiplatform toolkit for creating graphical user interfaces. It is used for all GNOME applications, The GIMP, and several others. GTK+ has been designed to support a range of languages, not only C/C++. Originally it was written for GIMP, hence the name “GIMP Toolkit.” Find more information at <http://www.gtk.org>. Language bindings for GTK+ are summarized under <http://gtk.org/features.html#LanguageBindings>.

KDevelop

KDevelop allows you to write programs for different languages (C/C++, Python, Perl, etc.). It includes a documentation browser, a source code editor with syntax highlighting, a GUI for the compiler, and much more. Find more information at <http://www.kdevelop.org>.

MonoDevelop

The Mono Project is an open development initiative that is working to develop an open source Unix version of the .NET development platform. Its objective is to

enable Unix developers to build and deploy cross-platform .NET applications. MonoDevelop complements the Mono development with an IDE. Find more information about MonoDevelop at <http://www.monodevelop.com/>.

Qt

Qt is a program library for developing applications with graphical user interfaces. It allows you to develop professional programs rapidly. The Qt library is available not only for Linux, but for a number of Unix flavors and even for Windows and Macintosh. Thus it is possible to write programs that can be easily ported to those platforms. Find more information at <http://trolltech.com>. Language bindings for Qt development are summarized under <http://developer.kde.org/language-bindings/>.

Qt Designer

Qt Designer is a user interface and form builder for Qt and KDE development. It can be run as part of the KDevelop IDE or in stand-alone mode. QtDesigner can be run under Windows and even integrates into the Visual Studio development suite. Find more information about Qt Designer at <http://trolltech.com/products/qt/designer.html>.

Subversion

Subversion does the same thing CVS does but has major enhancements, like moving, renaming, and attaching meta information to files and directories. The Subversion home page is <http://subversion.tigris.org/>.

Valgrind

Valgrind is a suite of programs for debugging and profiling x86 applications. Find more information about Valgrind at <http://valgrind.org/info/>.

Using the Fingerprint Reader

With the ThinkFinger driver, SUSE Linux Enterprise® supports the fingerprint reader by UPEK/SGS Thomson Microelectronics included with some IBM and Lenovo ThinkPads. The same fingerprint reader can also be found in other laptops and either as a stand-alone device or built into some USB keyboards. For more details, refer to http://thinkfinger.svn.sourceforge.net/viewvc/*checkout*/thinkfinger/README.in. If your system includes the fingerprint reader, you can use biometric authentication in addition to standard authentication via login and password. After registering their fingerprint, users can log in to the system either by swiping a finger on the fingerprint reader or by typing in a password.

If the hardware check detects the fingerprint reader integrated with your laptop (or connected to your system), the packages `libthinkfinger`, `pam_thinkfinger`, and `yast2-fingerprint-reader` are automatically installed.

Currently, only one fingerprint per user can be registered. The user's fingerprint data is stored to `/etc/pam_thinkfinger/login.bir`. To manage fingerprint authentication, either use YaST (see [Section D.2, “Managing Fingerprints with YaST”](#) (page 330)) or the `tf-tool` command line tool which also offers additional options (see [Section D.3, “Managing Fingerprints with tf-tool”](#) (page 332)).

D.1 Supported Applications and Actions

The PAM module `pam_thinkfinger` supports fingerprint authentication for the following applications and actions (although you may not be prompted to swipe your finger in all cases):

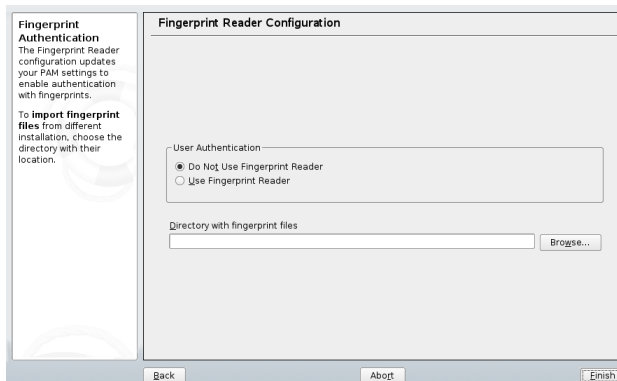
- Logging in to GDM/KDM or a login shell
- Unlocking your screen on the GNOME/KDE desktop
- Starting YaST and the YaST modules
- Starting an application with `root` permission: `sudo` or `gnomesu`
- Changing to a different user identity with `su` or `su - username`

D.2 Managing Fingerprints with YaST

Procedure D.1 Enabling Fingerprint Authentication

In order to allow biometric authentication for certain users, you need to generally enable fingerprint support in YaST first.

- 1 Start YaST and select *Hardware > Fingerprint Reader*.

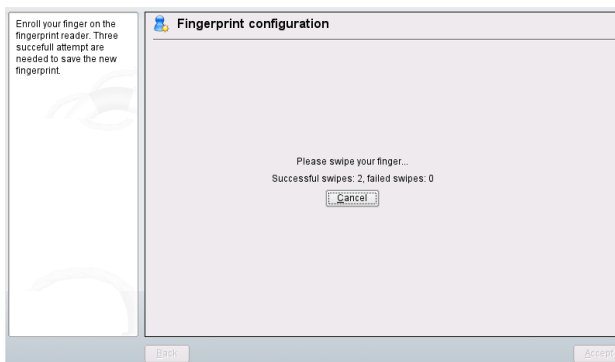


- 2 In the configuration dialog, activate *Use Fingerprint Reader* and click *Finish* to save the changes and close the dialog.

Now you can register a fingerprint for various users.

Procedure D.2 *Registering a Fingerprint*

- 1 In YaST, click *Security and Users > User Management* to open the *User and Group Administration* dialog. A list of users or groups in the system is displayed.
- 2 Select the user for whom you want to register a fingerprint and click *Edit*.
- 3 On the *Plug-Ins* tab, select the fingerprint entry and click *Launch* to open the *Fingerprint Configuration* dialog.
- 4 YaST prompts the user to swipe his finger until three readable fingerprints have been gathered.



- 5 After the fingerprint has been acquired successfully, click *Accept* to close the *Fingerprint Configuration* dialog and the dialog for the user.
- 6 If you also want to use fingerprint authentication for starting YaST or the YaST modules, you need to register a fingerprint for `root`, too.

To do so, set the filter in the *User and Group Administration* dialog to *System Users*, select the `root` entry and register a fingerprint for `root` as described above.

- 7 After you have registered fingerprints for the desired users, click *Finish* to close the administration dialog and to save the changes.

As soon as the user's fingerprint has been successfully registered, the user can choose to authenticate with either fingerprint or password for the actions and applications listed in [Section D.1, “Supported Applications and Actions”](#) (page 330).

Currently, YaST does not offer verification or removal of fingerprints, but you can verify or remove fingerprints from the command line. Refer to [Verifying or Removing a Fingerprint](#) (page 333) for more information.

With YaST, you can also import fingerprint files (*.bir) already stored somewhere in your file system. Click *Hardware > Fingerprint Reader* and select or enter the *Directory with fingerprint files*. Click *Finish* to start the import. The fingerprint files are copied to /etc/pam_thinkfinger/login.bir, the default directory for the fingerprint files.

D.3 Managing Fingerprints with tf-tool

Procedure D.3 *Registering a Fingerprint*

- 1 Open a shell and log in as root.
- 2 To register a fingerprint for a certain user, enter

```
tf-tool --add-user login
```

tf-tool prompts the user to swipe his finger until three readable fingerprints have been gathered.
- 3 If you also want to use fingerprint authentication for starting YaST or the YaST modules in the GNOME Control Center, you need to register a fingerprint for root, too.

As soon as the user's fingerprint has been successfully registered, the user can choose to authenticate with either fingerprint or password for the actions and applications listed in [Section D.1, “Supported Applications and Actions”](#) (page 330).

Procedure D.4 *Verifying or Removing a Fingerprint*

- 1 Open a shell and log in as `root`.
- 2 To verify an existing fingerprint for a certain user, run the following command:

```
tf-tool --verify-user login
```

- 3 Let the user swipe his finger. `tf-tool` compares the fingerprint to the print stored for this user and provides a message if the fingerprints match.
- 4 To remove a user's fingerprint, delete the appropriate fingerprint file for this user with the following command:

```
shred /etc/pam_thinkfinger/login.bir
```

With `tf-tool --acquire` you can do a test run with `tf-tool`. The fingerprint is stored as `/tmp/test.bir` and can be verified with `tf-tool --verify`.

D.4 For More Information

- Find the project home page at <http://thinkfinger.sourceforge.net/>
- For more technical details, refer to `/usr/share/doc/packages/libthinkfinger/README` in your installed system.
- There are also man pages available for `pam_thinkfinger` and `tf-tool`.

Support of Tablet PCs

SUSE Linux Enterprise® comes with support for Tablet PCs with serial Wacom devices. Although the majority of installation is the same as on other systems, several packages must be added manually. Then configure the input device properly.

NOTE: Tablet PC Features on 64-bit Architectures

Currently, Tablet PC support is only available for 32-bit architectures. To use Tablet PC features on 64-bit architectures, you need to install a 32-bit system.

After you have installed the Tablet PC packages and configured your digitizer correctly, input with the pen, also called a stylus, can be used for the following actions and applications:

- Logging in to KDM or GDM
- Unlocking your screen on the KDE and GNOME desktops
- Actions that can also be triggered by other pointing devices (such as mouse or touch pad), for example, moving the cursor on the screen, starting applications, closing, resizing and moving windows, shifting window focus, dragging and dropping objects
- Using gesture recognition in applications of the X Window System
- Drawing with The GIMP
- Taking notes or sketching with applications like Jarnal or Xournal or editing larger amounts of text with Dasher

NOTE: Keyboard or Mouse Needed for Installation

During installation of SUSE Linux Enterprise, the pen cannot be used as an input device. If your Tablet PC does not feature a built-in keyboard or touch pad, connect an external keyboard or mouse to your Tablet PC for installation of your system.

E.1 Installing Tablet PC Packages

Because YaST does not automatically detect Tablet PCs, install additional packages during or after installation of your system. The `TabletPC` installation pattern contains the following packages:

- `jarnal`: a Java-based note taking application
- `xournal`: an application for note taking and sketching
- `xstroke`: a gesture recognition program for the X Window System
- `xvkbd`: a virtual keyboard for the X Window System
- `x11-input-wacom`: the X input module for Wacom tablets
- `x11-input-wacom-tools`: configuration, diagnostics, and libraries for Wacom tablets

You can manually install the packages from command line or select the pattern for installation in YaST:

- 1 Start the YaST package manager from the command line or open YaST and select *Software > Software Management*.
- 2 For *Filter*, select *Pattern* to view the available packages grouped in patterns.
- 3 In the *Additional Software* group, mark the *TabletPC* pattern for installation.
- 4 Click *Accept* to start the installation of the packages.

E.2 Configuring Your Wacom Device

After the Tablet PC packages have been installed, configure your tablet device. Currently, SUSE Linux Enterprise does not support configuration of Wacom devices with SaX2. Instead, it is necessary to edit a system configuration file. Only the system administrator can make the changes to the `/etc/X11/xorg.conf` file.

WARNING: A Faulty X Configuration Can Damage Your Hardware

Before editing the `/etc/X11/xorg.conf` file, create a backup of the original file. Do not edit other sections of the file, because this can cause damage to your hardware.

For Wacom devices, add a couple of lines to `/etc/X11/xorg.conf` as shown in [Example E.1, “Configuration for Wacom Devices”](#) (page 338).

Example E.1 Configuration for Wacom Devices

1. Add the following InputDevice sections:

```
Section "InputDevice" ❶
    Driver      "wacom"
    Identifier   "Mouse[5]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Tablet"
    Option       "Mode" "Absolute"
    Option       "SendCoreEvents" "on"
    Option       "Type" "cursor"
EndSection
```

```
Section "InputDevice" ❷
    Driver      "wacom"
    Identifier   "Mouse[7]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Pen"
    Option       "Mode" "Absolute"
    Option       "Type" "stylus"
EndSection
```

```
Section "InputDevice" ❸
    Driver      "wacom"
    Identifier   "Mouse[9]"
    Option       "Device" "/dev/ttyS0"
    Option       "ForceDevice" "ISDV4"
    Option       "InputFashion" "Eraser"
    Option       "Mode" "Absolute"
    Option       "Type" "eraser"
EndSection
```

- ❶ Configuration for the tablet cursor input device connected to `/dev/ttyS0`. If you use a HP Compaq tc4200, try `/dev/ttyS2` instead. The device is given the `"Mouse[5]"` identifier to avoid problems in upcoming SaX2 versions.
- ❷ Configuration for the tablet stylus input device.
- ❸ Configuration for the tablet eraser input device. This part of the pen can be used in some applications to erase input.

2. Add the following lines to the ServerLayout section:

```
InputDevice "Mouse[5]" "SendCoreEvents"  
InputDevice "Mouse[7]" "SendCoreEvents"  
InputDevice "Mouse[9]" "SendCoreEvents"
```

With these changes, your `/etc/X11/xorg.conf` should resemble the following:

[...]

```
Section "InputDevice" ❶  
    Driver      "mouse"  
    Identifier   "Mouse[3]"  
    Option       "Buttons" "5"  
    Option       "Device"  "/dev/input/mice"  
    Option       "Name"     "ImPS/2 Generic Wheel Mouse"  
    Option       "Protocol" "explorerps/2"  
    Option       "Vendor"   "Sysp"  
    Option       "ZAxisMapping" "4 5"  
EndSection
```

```
Section "InputDevice" ❷  
    Driver      "wacom"  
    Identifier   "Mouse[5]"  
    Option       "Device"  "/dev/ttyS0"  
    Option       "ForceDevice" "ISDV4"  
    Option       "InputFashion" "Tablet"  
    Option       "Mode"     "Absolute"  
    Option       "SendCoreEvents" "on"  
    Option       "Type"     "cursor"  
EndSection
```

```
Section "InputDevice" ❸  
    Driver      "wacom"  
    Identifier   "Mouse[7]"  
    Option       "Device"  "/dev/ttyS0"  
    Option       "ForceDevice" "ISDV4"  
    Option       "InputFashion" "Pen"  
    Option       "Mode"     "Absolute"  
    Option       "Type"     "stylus"  
EndSection
```

```
Section "InputDevice" ❹  
    Driver      "wacom"  
    Identifier   "Mouse[9]"  
    Option       "Device"  "/dev/ttyS0"  
    Option       "ForceDevice" "ISDV4"  
    Option       "InputFashion" "Eraser"  
    Option       "Mode"     "Absolute"  
    Option       "Type"     "eraser"  
EndSection
```

```
[...]

Section "ServerLayout"
    Identifier      "Layout[all]"
    InputDevice    "Keyboard[0]" "CoreKeyboard"
    InputDevice    "Mouse[1]" "CorePointer"
    InputDevice    "Mouse[3]" "SendCoreEvents"
    InputDevice    "Mouse[5]" "SendCoreEvents" ❸
    InputDevice    "Mouse[7]" "SendCoreEvents"
    InputDevice    "Mouse[9]" "SendCoreEvents"
    Option         "Clone" "off"
    Option         "Xinerama" "off"
    Screen         "Screen[0]"
EndSection
```

- ❶ Default mouse configuration.
- ❷ Newly added configuration for tablet cursor input device.
- ❸ Newly added configuration for the tablet stylus input device.
- ❹ Newly added configuration for the tablet eraser input device.
- ❺ The tablet input devices "Mouse[5]", "Mouse[7]", and "Mouse[9]" are added to the X server devices.

This example configuration should work on most Tablet PCs. For more information check the HOWTO on the Linux Wacom Web site: <http://linuxwacom.sourceforge.net/index.php/howto/x11>.

3. After finishing the X Window System configuration, restart your X server by logging out or leave the user interface and run `init 3 && init 5` in a virtual console.

E.3 Using Common Tablet PC Features

After your Wacom device has been configured, you can now make use of your pen as input device.

E.3.1 Using the Virtual Keyboard

To log in to the KDE or GNOME desktop or to unlock the screen, you can either enter your username and password as usual or via the virtual keyboard, `xvkbd`, displayed below the login field. To configure the keyboard or to access the integrated help, click the `xvkbd` field at the left lower corner to open the `xvkbd` main menu.

Figure E.1 `xvkbd` Virtual Keyboard

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	Backspace	xvkbd (v2.7)						
Esc	!	@	#	\$	%	^	&	*	()	-	=		~	Num Lock	/	*	Focus	
Tab	Q	W	E	R	T	Y	U	I	O	P	{	}	[]	Del	7 Home	8 Up	9 PgUp	+
Control	A	S	D	F	G	H	J	K	L	:	"	'	Return			4 Left	5	6 Right	-
Shift	Z	X	C	V	B	N	M	<	>	?	Com pose	Shift				1 End	2 Down	3 PgDn	Enter
xvkbd	Caps Lock	Alt	Meta			Meta	Alt	←	→	↑	↓	Focus				0 Ins	.	Del	

If you want to use `xvkbd` after login, start it from the main menu or with `xvkbd` from a shell.

E.3.2 Rotating Your Display

When rotating your Tablet PC monitor, the orientation of your display and of your graphics tablet is not automatically adjusted. For the KDE desktop, use `KRandRTray` to rotate or resize your display manually on the fly. `KRandRTray` is a KDE applet for the `RANDR` extension of the X server.

- 1 Start `KRandRTray` from the main menu or with `krandrtray` from a shell. This adds the `KRandRTray` icon to your system tray.

- 2 To rotate your display, click the icon and select the desired orientation from the context menu. Your display is immediately tilted to the new direction. Also the orientation of the graphics tablet changes so it can still interpret the movement of the pen correctly.

For the GNOME desktop, a similar functionality can currently only be provided by a work-around. See [Section E.4, “Troubleshooting”](#) (page 345) for more information.

E.3.3 Using Gesture Recognition

With `xstroke`, you can use gestures with your pen or other pointing devices as input for applications on the X Window System. The `xstroke` alphabet is a unistroke alphabet that resembles the Graffiti* alphabet. When activated, `xstroke` sends the input to the currently focused window.

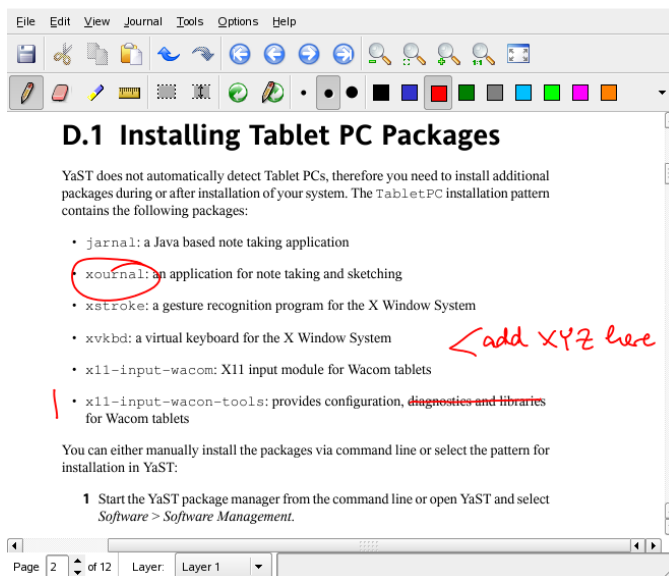
- 1 Start `xstroke` from the main menu or with `xstroke` from a shell. This adds a pencil icon to your system tray.
- 2 Start the application for which you want to create text input with the pen (for example, a terminal window, a text editor, or OpenOffice.org Writer).
- 3 To activate gesture recognition mode, click the pencil icon once.
- 4 Perform some gestures on the graphics tablet with the pen or another pointing device. `xstroke` captures the gestures and transfers them to text that appears in the application window that has the focus.
- 5 To switch focus to a different window, click the desired window with the pen and hold for a moment (or use the keyboard shortcut defined in your desktop's control center).
- 6 To deactivate the gesture recognition mode, click the pencil icon again.

E.3.4 Taking Notes and Sketching with the Pen

To create drawings with the pen, you can use a professional graphics editor like The GIMP or try one of the note taking applications, Xournal or Jarnal. With both Xournal and Jarnal, you can take notes, create drawings, or comment PDF files with the pen. As a Java-based application available for several platforms, Jarnal also offers basic collaboration features. For more information, refer to <http://www.dklevine.com/general/software/tc1000/jarnal-net.htm>. When saving your contents, Jarnal stores the data in an archive format (*.jaj) that also contains a file in SVG format.

Start Jarnal or Xournal from the main menu or by entering `jarnal` or `xournal` in a shell. To comment a PDF file in Xournal, for example, select *File > Annotate PDF* and open the PDF file from your file system. Use the pen or another pointing device to annotate the PDF then save your changes with *File > Print to PDF*.

Figure E.2 Annotating a PDF with Xournal

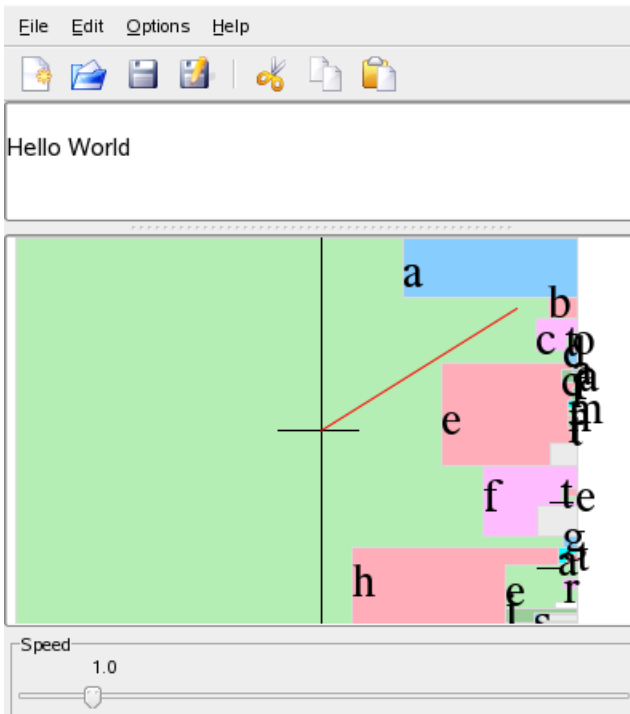


Dasher is another useful application. It was designed for situations where keyboard input is impractical or unavailable. With a bit of training, you can rapidly enter larger amounts

of text using only the pen (or other input devices—it can even be driven with an eye tracker).

Start Dasher from the main menu or with `dasher` from a shell. Move your pen in one direction and the applications starts to zoom into the letters on the right side. From the letters passing the cross hairs in the middle, the text is created or predicted and is printed to the upper part of the window. To stop or start writing, click the display once with the pen. Modify the zooming speed at the bottom of the window.

Figure E.3 *Editing Texts with Dasher*



The Dasher concept works for many languages. For more information, refer to the Dasher Web site, which offers comprehensive documentation, demonstrations and training texts. Find it at <http://www.inference.phy.cam.ac.uk/dasher/>

E.4 Troubleshooting

Virtual Keyboard Does Not Appear on Login Screen

Occasionally, the virtual keyboard is not displayed on the login screen. To solve this, restart the X server by pressing `Ctrl + Alt + <—` or press the appropriate key on your Tablet PC (if you use a slate model without integrated keyboard). If the virtual keyboard still does not show, connect an external keyboard to your slate model and log in using the hardware keyboard.

Orientation of the Graphics Tablets Does Not Change in GNOME

With the `xrandr` command, you can change the orientation of your display from within a shell. Enter `xrandr --help` to view the options available. To simultaneously change the orientation of your graphics tablet, the command needs to be modified as described below:

- For normal orientation (0° rotation):

```
xrandr -o 0 && xsetwacom set "Mouse[7]" Rotate 0
```

- For 90° rotation (clockwise, portrait):

```
xrandr -o 3 && xsetwacom set "Mouse[7]" Rotate 1
```

- For 180° rotation (landscape):

```
xrandr -o 2 && xsetwacom set "Mouse[7]" Rotate 3
```

- For 270° rotation (counterclockwise, portrait):

```
xrandr -o 1 && xsetwacom set "Mouse[7]" Rotate 2
```

Note that the commands above depend on the contents of your `/etc/X11/xorg.conf` configuration file. If the example configuration presented in [Example E.1, “Configuration for Wacom Devices”](#) (page 338) has been used, the commands should work as they are written. If you have changed the Identifier of the tablet stylus input device in `xorg.conf`, replace `"Mouse[7]"` with the new Identifier.

E.5 For More Information

Some of the applications mentioned here do not offer integrated online help, but you can find some useful information about usage and configuration in your installed system in `/usr/share/doc/package/packagename` or on the Web:

- For the Xournal manual, refer to <http://xournal.sourceforge.net/manual.html>
- The Jarnal documentation is located at <http://www.dklevine.com/general/software/tcl000/jarnal.htm#documentation>
- Find the xstroke man page at <http://davesource.com/Projects/xstroke/xstroke.txt>
- Find a HOWTO for configuring X on the Linux Wacom Web site: <http://linuxwacom.sourceforge.net/index.php/howto/x11>
- Find a very informative Web site about the Dasher project at <http://www.inference.phy.cam.ac.uk/dasher/>