openSUSE

SUSE

A NOVELL BUSINESS

GNOME User Guide

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Contents

About This Guide

This manual introduces you to the GNOME graphical desktop environment as implemented in openSUSE®10.3 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.

This guide contains the following sections:

- Part I, "GNOME Desktop" (page 1)

- Part II, "Office and Collaboration" (page 145)

- Part III, "Internet" (page 271)

- Part IV, "Multimedia" (page 293)

- Appendix A, *Moving from Windows to Linux* (page 369)

1 Audience

This guide is intended for users of the GNOME desktop.

2 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, or go to `http://www.novell.com/documentation/feedback.html` and enter your comments there.

3 Documentation Updates

For the latest version of this documentation, see the Web site.

4 Additional Documentation

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

Start-Up
> Guides you through the installation and basic configuration of your system. For newcomers, the manual also introduces basic Linux concepts such as the file system, the user concept and access permissions and gives an overview of the features openSUSE offers to support mobile computing. Provides help and advice in troubleshooting.

KDE Quick Start
> Gives a short introduction to the KDE desktop and some key applications running on it.

KDE User Guide
> Introduces the KDE desktop of openSUSE and a variety of applications shipping with it. 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 KDE in everyday life.

GNOME Quick Start
> Gives a short introduction to the GNOME desktop and some key applications running on it.

GNOME User Guide
> Introduces the GNOME desktop of openSUSE and a variety of applications you will encounter when working with the GNOME 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 GNOME desktop.

Reference

Gives you a general understanding of openSUSE and covers advanced system administration tasks. It is intended mainly for system administrators and home users with basic system administration knowledge. It provides detailed information about advanced deployment scenarios, administration of your system, the interaction of key system components and the set-up of various network and file services openSUSE offers.

Novell AppArmor Quick Start

Helps you understand the main concepts behind Novell® AppArmor.

Novell AppArmor Administration Guide

Contains in-depth information about the use of Novell AppArmor in your environment.

Lessons For Lizards

A community book project for the openSUSE distribution. A snapshot of the manual written by the open source community is released on an equal footing with the Novell/SUSE manuals. The lessons are written in a cook book style and cover more specific or exotic topics than the traditional manuals. For more information, see `http://developer.novell.com/wiki/index.php/Lessons_for_Lizards`.

Find HTML versions of the openSUSE manuals in your installed system under `/usr/share/doc/manual` or in the help centers of your KDE or GNOME desktop. You can also access the documentation on the Web at `http://www.novell.com/documentation/opensuse103/` where you can download PDF or HTML versions of the manuals. For information where to find the books on the installation media, refer to the Release Notes of this product, available in your installed system under `/usr/share/doc/release-notes/`.

5 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.

6 About the Making of This Manual

This book is written in Novdoc, a subset of DocBook (see http://www.docbook.org). The XML source files were validated by `xmllint`, processed by `xsltproc`, and converted into HTML using a customized version of Norman Walsh's stylesheets.

7 Acknowledgments

With a lot of voluntary commitment, the developers of Linux cooperate on a global scale to promote the development of Linux. We thank them for their efforts—this distribution would not exist without them. Furthermore, we thank Frank Zappa and Pawar. Special thanks, of course, go to Linus Torvalds.

Have a lot of fun!

Your SUSE Team

Part I. GNOME Desktop

Getting Started with the GNOME Desktop

<div style="text-align: right">**1**</div>

This section describes the conventions, layout, and common tasks of the GNOME desktop as implemented in openSUSE®10.3.

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

1.1 Logging In and Selecting a Desktop

If more than one user account is configured on your computer, usually all users must authenticate—unless *Auto Login* is enabled for a certain user. Auto login lets a user automatically log in to the desktop environment when the system starts. This feature can be enabled or disabled during installation or at any time using the YaST User Management module. For more information, refer to the chapter about user management in *Start-Up*, available at http://www.novell.com/documentation/opensuse103/.

If your computer is running in a network environment and you are not the only person using the machine, you are usually prompted to enter your username and password when you start your system. If you did not set up your system and your user account, check with your system administrator for your username and password.

The program managing the login process depends on the desktop environment installed on your system. For GNOME, it is GDM. If the KDE desktop is also installed on your system, it might be KDM.

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.

- **Restart:**   Select to restart the computer.

- **Shut Down:**   Select to shut 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. During a session, you can use applications, print, browse the Web, and so on.

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 2.4.9, "Managing Sessions" (page 134).

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, then click *Leave > Logout*.

2 On the login screen, click *Session*.

3 Select the desktop you want (*GNOME* or *KDE*), then click *Change Session*.

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, 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 2.2.7, "Configuring the Screen Saver" (page 119).

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. If your system provides power management, you can also suspend your computer, making the next system start much faster than a complete reboot.

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*
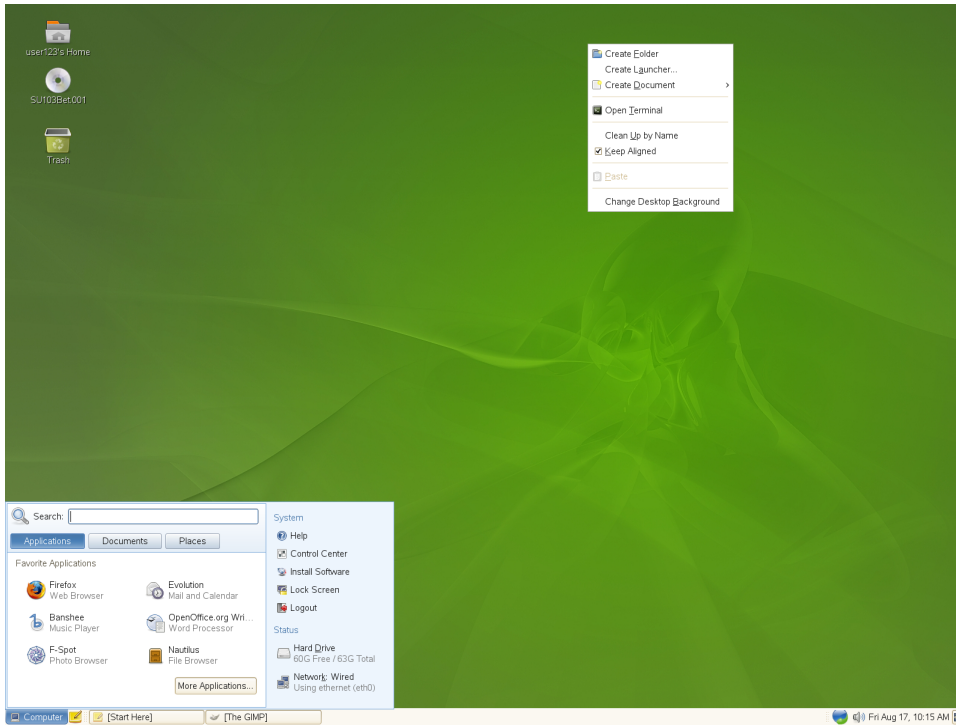
By default, the desktop features two key icons: your personal Home folder and a trash can for deleted items. Other icons representing devices on your computer, such as CD drives, might also be present on the desktop. If you double-click your Home folder, the Nautilus file manager starts and displays the contents of your home directory. For more information about using Nautilus, see Section 1.5, "Managing Folders and Files with Nautilus" (page 18).

Right-clicking an icon displays a menu that offers file operations such as 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 also 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 that 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 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. You cannot move the Home icon to the trash.

WARNING

.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.

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*
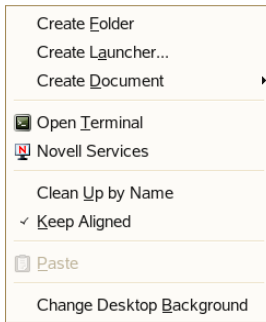
1.3.3 Bottom Panel

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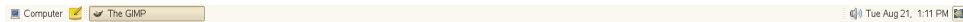
The *Show Desktop* icon is on the right side of the bottom panel. This icon minimizes all program windows and displays the desktop. Or, if all windows are already minimized, it reopens them.

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

Table 1.1 *Panel Menu Options*

Option	Description
Add to Panel	Opens a menu of applications and applets that can be added to the panel.

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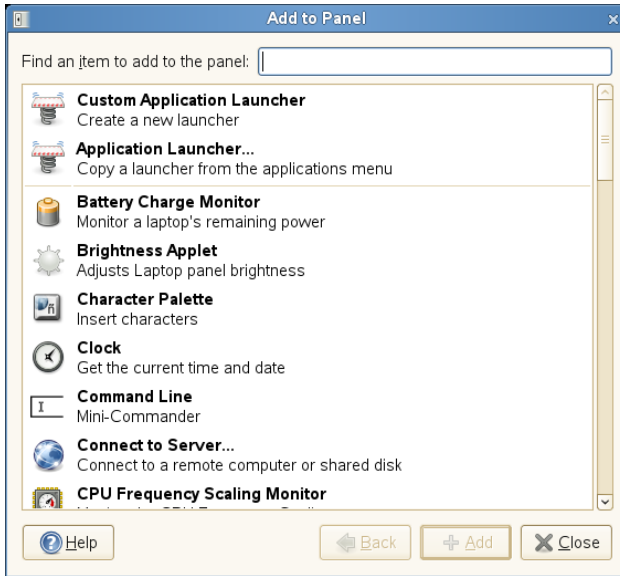
Some useful applets include the following:

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 clutter 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*
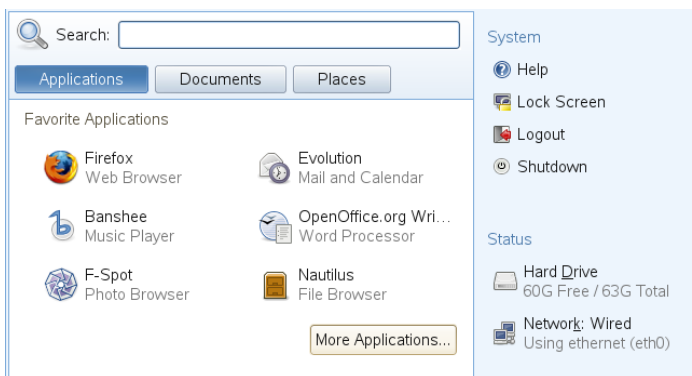
The main menu contains several elements:

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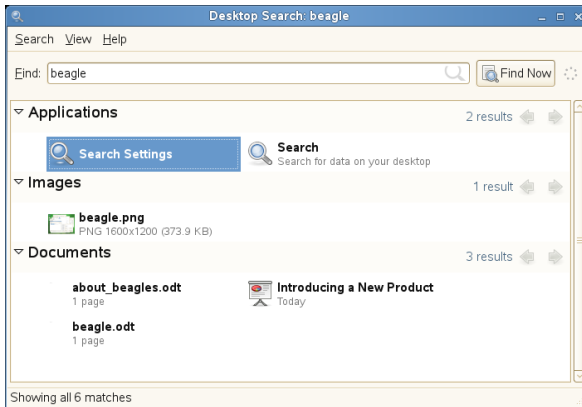
You can use the results list to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you want. The options available for an item depend on the type of file it is. Clicking a file in the list displays a preview of the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

1.4.2 Main Menu Tabs

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

- Section "Favorite Applications" (page 16)

- Section "Recent Applications" (page 17)

- Section "Recent Documents" (page 17)

- Section "Recent Places" (page 17)

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 Help Center, which provides online documentation for your system.
Control Center	Allows you to customize and configure your system. For more information, see Chapter 2, *Customizing Your Settings* (page 59).
Install Software	Opens the Software Installer, which guides you through the process of installing new software.

Application	Description
Lock Screen	Locks your system so that nobody can access it while you are away. Enter your password to unlock the system.
Log Out	Opens the Log Out dialog, where you can log out or switch users.
Shutdown	Opens the Shutdown 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 > System > Home Folder* or *Nautilus File Browser*.

Figure 1.6 *File Manager*
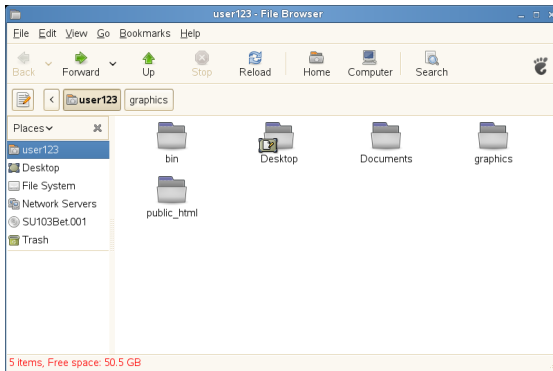
The elements of the Nautilus window include the following:

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

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

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. To close the side pane, click the X at the top right of the side pane. To display the side pane, click *View > Side Pane*.

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
Backspace or Alt+Up-arrow	Opens the parent folder.
Up or Down	Selects an item.
Alt+Down or Enter	Opens an item.
Shift+Alt+Down	Opens an item and closes the current folder.
Shift+Alt+Up	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 haven't recently 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*.
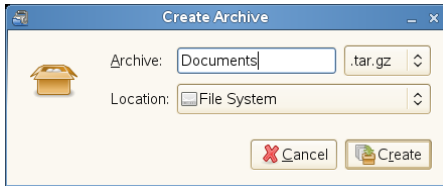
2 Accept the default archive filename or provide a new name.

3 Select a file extension from the drop-down list (use `tar.gz` for the most common archive form).

4 Specify a location for the archive file, then click *Create*.

To extract an archived file, right-click the file, then 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 > Multimedia > GNOME CD/DVD Creator*, or insert a blank disc 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.
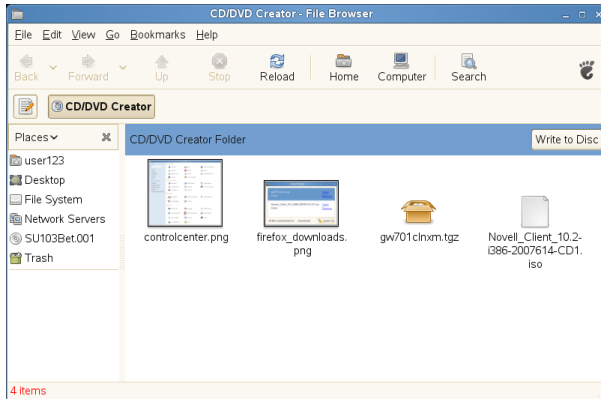
3 Click *Write to Disc*.

4 Modify information in the Write to Disc dialog box or accept the defaults, then click *Write*.

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

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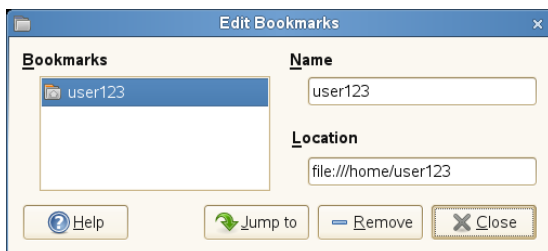
To change the order of your bookmarks, click a bookmark and drag it to the desired location.

1.5.5 File Manager Preferences

You can change the File Manager preferences by clicking *Edit* > *Preferences*. For more information, see Section 2.2.3, "File Management Preferences" (page 99).

1.6 Accessing Network Resources

This section describes how to access network resources:

- Section 1.6.1, "Connecting to Your Network" (page 23)

- Section 1.6.2, "Accessing Network Shares" (page 24)

- Section 1.6.3, "Sharing Directories From Your Computer" (page 26)

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 1.7 *Network Connections Icon in the Main Menu*
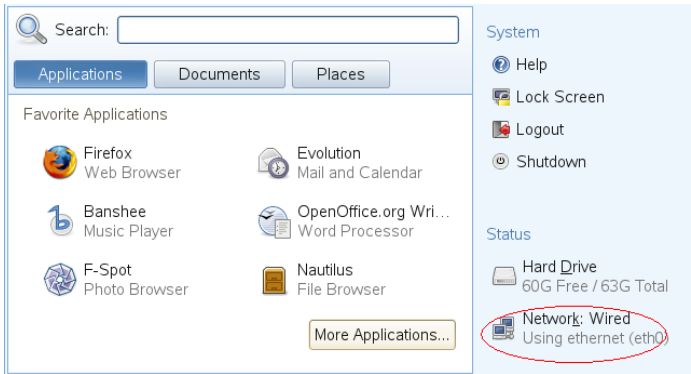
Click the icon to open the YaST Network Settings module. You an use this module to configure your network setup method or edit your network card configuration.

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 view pane 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 1.8 *Network File Browser*
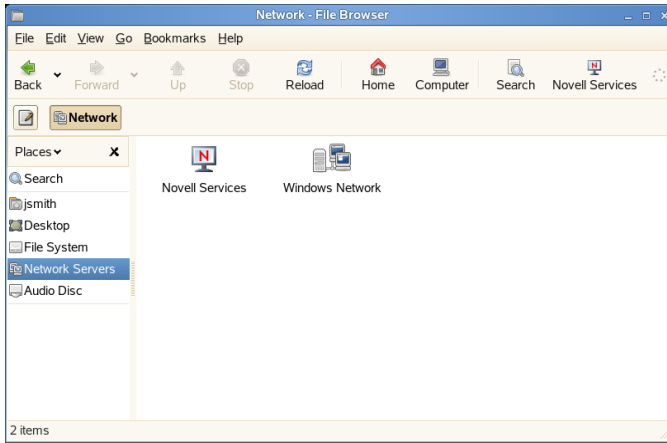
To access NFS shares, double-click the *UNIX Network* icon. A list of UNIX* shares available to you is displayed.

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

For more information, see Chapter 8, *Accessing Network Resources* (page 225).

Adding a Network Place

1 Click *Computer > Nautilus File Browser > File > Connect to Server*.
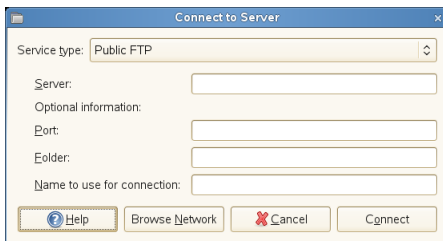
2 Select a service type, then specify the required information for your type of service.

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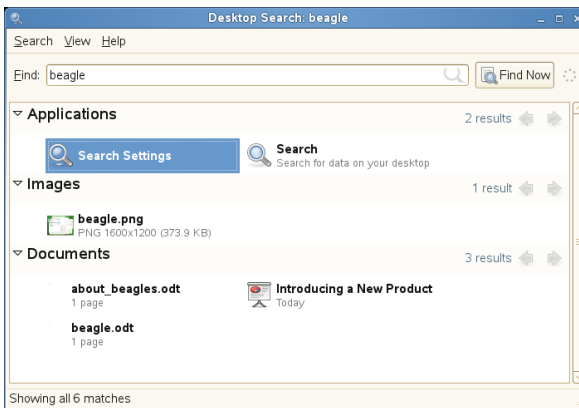
You can use the results lists to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you want. The options available for an item depend on the type of file it is. Clicking a file in the list displays a preview of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

For more information, see Chapter 10, *Searching with Beagle* (page 249).

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, date, 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 1.9   *Search for Files Dialog*
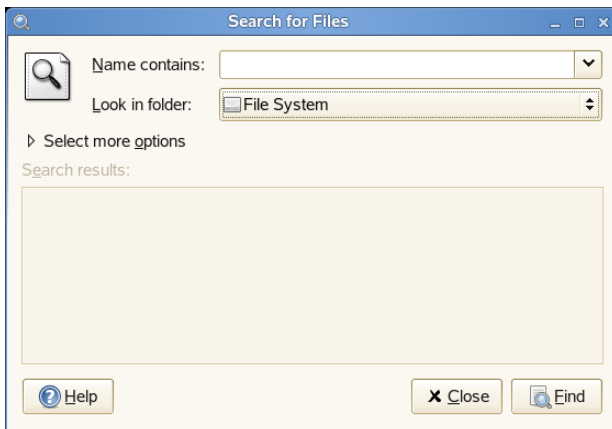
Search for Files uses the find, grep, and locate UNIX commands, and all searches are case insensitive.

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	myfile.txt	Searches for all files that contain "myfile.txt" in the filename.
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
Contains the text	Searches for a file by filename. Type a full file-name 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.
Date modified less than	Searches for files that were modified within the period specified (in days).
Date modified more than	Searches for files that were modified before the period specified (in days).
Size at least	Searches for files that are equal to or larger than the size specified (in kilobytes).
Size at most	Searches for files that are smaller than or equal to the size specified (in kilobytes).
File is empty	Searches for empty files.
Owned by user	Searches for files that are owned by the user specified. Type the name of the user in the text box provided.
Owned by group	Searches for files that are owned by the group specified. Type the name of the group in the text box provided.
Owner is unrecognized	Searches for files that are owned by a user or group that is unknown to the system.
Name does not contain	Searches for filenames that do *not* contain the string that you enter. Enter a full filename or a partial filename with wildcards in the field provid-ed. 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.
Name matches regular expression	Searches for files that contain the specified regular expression in their directory path or filename. Type the regular expression in the text box provided.
	Regular expressions are special text strings used to describe a search pattern. For more information, see Regular-Expressions.info [`http://www.regular-expressions.info`].
Show hidden and backup files	Includes hidden and backup files in the search.
Follow symbolic links	Follows symbolic links when searching for files.
Include other filesystems	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 30) and Step 6 (page 32) 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 1.10 *Search Results List*
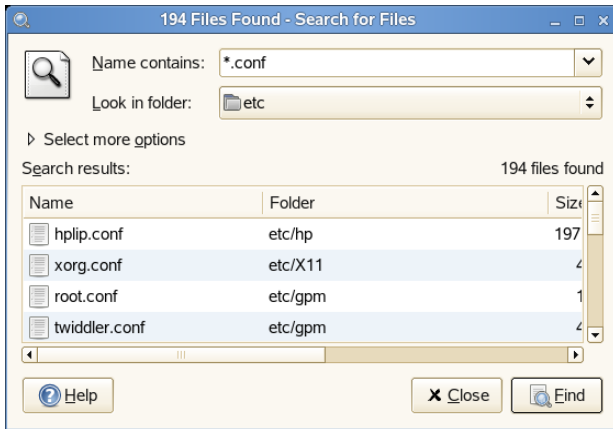
To open a file displayed in the Search Results list, right-click the file, then click *Open* or double-click the file. To open the folder that contains a file displayed in the Search Results list, right-click the file, then click *Open Folder*.

To delete a file displayed in the Search Results list, right-click the file, 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, then click *Save Results As*. Type a name for the file that 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, 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 Printing

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 openSUSE. If you cannot find a driver for the printer, check the printer manufacturer's Web site.

You can also use YaST to configure your printers, as described in *Start-Up*, available at http://www.novell.com/documentation/opensuse103/.

1.10.1 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.

1.10.2 Monitoring Print Jobs in GNOME

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*.

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.

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*.

1.11 Managing Internet Connections

To surf the Internet or send and receive e-mail messages, you must have configured an Internet connection with YaST. Depending on your environment, in YaST select whether to use NetworkManager. In GNOME, you can then establish Internet connections with NetworkManager as described in *Start-Up*, available at `http://www.novell.com/documentation/opensuse103/` or with ifup [`http://www.annodex.net/cgi-bin/man/man2html?ifup`].

For a list of criteria to help you to decide whether to use NetworkManager, refer to the NetworkManager chapter and the mobile computing chapter in *Start-Up*, available at `http://www.novell.com/documentation/opensuse103/`.

1.12 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 273).

1.13 E-mail and Scheduling

For reading and managing your mail and events, openSUSE offers you Novell® Evolution™, a groupware program that makes it easy to store, organize, and retrieve your personal information.

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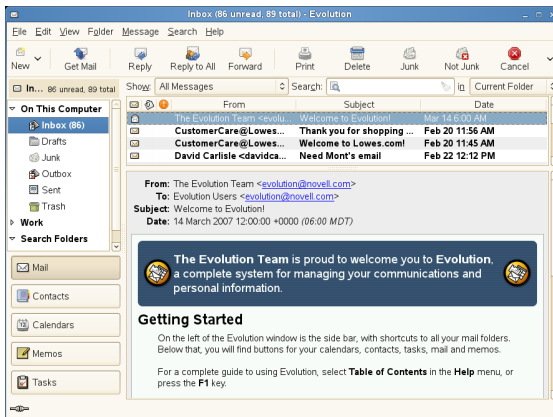
To start Evolution, click *Computer > More Applications > Office > Evolution Mail and Calendar*.

The first time you start Evolution, it prompts you with a few questions as it sets up a mail account and helps you import mail from your old mail client. Then it shows you how many new messages you have and lists upcoming appointments and tasks, 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 to open a new item for whatever part of Evolution you're working in. In mail, this creates a new message. If you're 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 183).

1.14 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 database, 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 information, see Chapter 3, *The OpenOffice.org Office Suite* (page 147) or view the help in any OpenOffice.org program.

1.15 Controlling Your Desktop's Power Management

GNOME Power Manager is a session daemon for the GNOME desktop that manages the power settings for your laptop or desktop computer.

GNOME Power Manager is usually started automatically when GNOME starts, but you can manually start GNOME Power Manager by using the following command:

```
gnome-power-manager --verbose --no-daemon
```

- Section 1.15.1, "GNOME Power Manager Notification Messages" (page 39)

- Section 1.15.2, "Viewing Power Statistics" (page 41)

- Section 1.15.3, "Modifying Power Management Preferences" (page 42)

1.15.1 GNOME Power Manager Notification Messages

The GNOME Power Manager displays the following notifications under the specified conditions:

AC Adapter Unplugged

Figure 1.11   *GNOME Power Manager Notification When AC Adapter is Removed*

You can disable this notification by changing the GConf key `/apps/gnome-power-manager/notify_ac_adapter`.

Fully Charged

Figure 1.12   *GNOME Power Manager Notification When Laptop Primary Battery is Fully Charged*
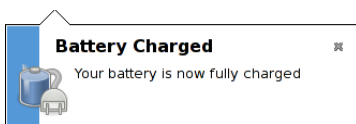
You can disable this notification by changing the GConf key `/apps/gnome-power-manager/notify_fully_charged`.

You will receive a repeat notification only if your battery percentage charge drops below 95% and then is again fully charged. This prevents some machines from showing unwanted repeat notifications if the battery is incorrectly reporting the charged status.

Power Low

When the battery is low, you will receive the following notification. You should consider switching to AC power as soon as possible.

Figure 1.13   *GNOME Power Manager Notification When Battery Power is Low*
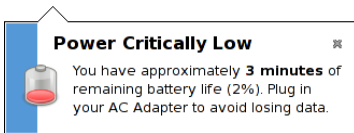
Power Critical

When the computer has run out of power, it will show this notification explaining what action is required. You can change the critical low action using the preferences tool (see for more information).

Figure 1.14   *GNOME Power Manager Notification When the System Power is Critically Low*
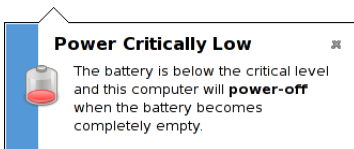
Suspend Failure

When a suspend failure occurs, you might receive this following warning. The most common reason for this notification is that the current user does not have permission to suspend or hibernate the computer.

Figure 1.15 *GNOME Power Manager Notification When Suspend Failure Occurs*
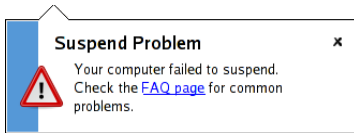
1.15.2 Viewing Power Statistics

The statistics program lets you view the power consumption of your laptop hardware in graphic form.

Figure 1.16 *Power History Going From Battery Power to AC*
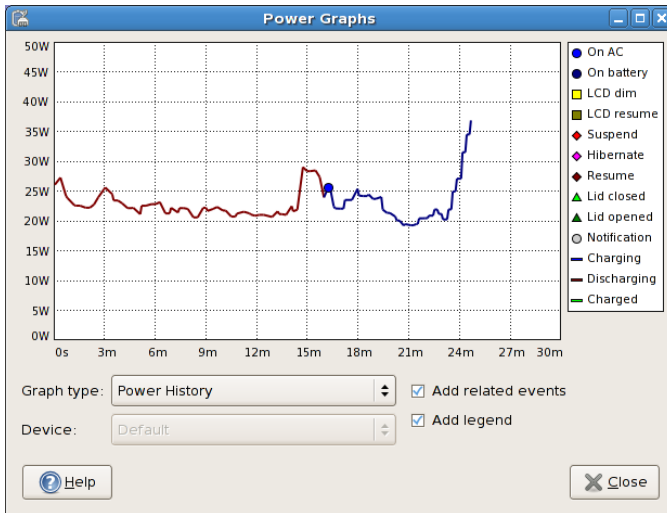
To access the statistics graphs, click *Computer > More Applications > System > Power Statistics*.

You might not see some options or graphs if your computer does not have the required hardware. You might also see other hardware not shown here (for example UPS devices), but these are treated the same way as other devices.

-

Change History

This graph shows the percentage charge available for the composite primary battery. If you have a main laptop battery and an auxiliary battery, only the averaged value will be shown. A legend is not shown with this graph.

Power History

This graph shows the power history charge used by the composite primary battery. The line represents the amount of power that is either being used to charge the batteries in the system, or the power being used by the system from the batteries. You should see the line go up when processor intensive tasks are performed, and go down when the system is at idle (or when the screen is dimmed). A legend is shown with this graph when data events have been received.

You will not receive rate data from your computer if it is not charging or discharging, or if the computer is suspended. This is due to hardware limitations where the rate is only sent from the battery management chip, rather than the power management chip on the motherboard.

Estimated Time History

This graph shows the estimated charge history for the composite primary battery. The line represents the amount of time required until charged, or the amount of time until discharge. This line should go proportionally up when the power decreases and down when the rate increases. A legend is shown with this graph when data events have been received.

1.15.3 Modifying Power Management Preferences

The Power Management Preferences dialog box lets you control the LCD brightness when your system is on AC or battery power, the idle time for the screen power-down

and suspend action, the actions to perform when the laptop lid is closed, and the notification area icon policy.

To access Power Management Preferences, click *Computer > More Applications > System > Power Management.*

- Section "On AC Power Preferences" (page 43)

- Section "On Battery Power Preferences" (page 44)

- Section "General Preferences" (page 44)

On AC Power Preferences

Use the options on the On AC Power dialog box to automatically put your computer to sleep when it has been inactive for a specified amount of time.When your computer is asleep, it is turned on but in a low power mode. It takes less time for a computer to wake up from sleep than it does for the computer to start up after being turned off.

You can also set only the display to sleep. If your computer is in the middle of a task (for example, burning a DVD) that you want to finish while you are away, set only the display to sleep.

Figure 1.17 *GNOME Power Manager On AC Power Preferences*
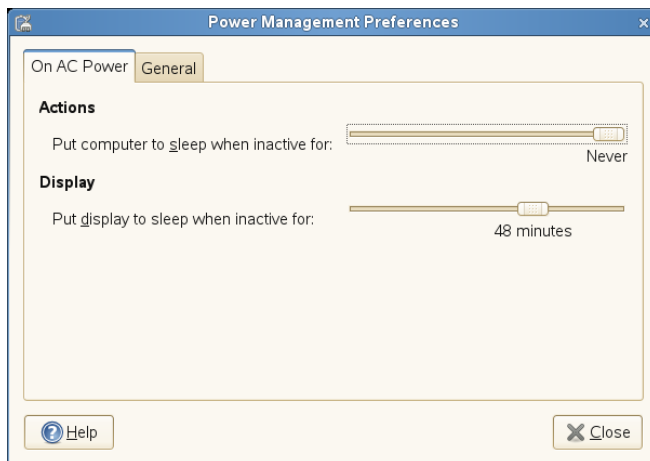
On Battery Power Preferences

Use the options on the On Batter Power dialog box to automatically put your computer to sleep when it has been inactive for a specified amount of time, to specify what happens when you laptop lid closed, and what happens when battery power is critically low.

When your computer is asleep, it is turned on but in a low power mode. It takes less time for a computer to wake up from sleep than it does for the computer to start up after being turned off.

You can also set only the display to sleep. If your computer is in the middle of a task (for example, burning a DVD) that you want to finish while you are away, set only the display to sleep.

Figure 1.18   *GNOME Power Manager On Battery Power Preferences*
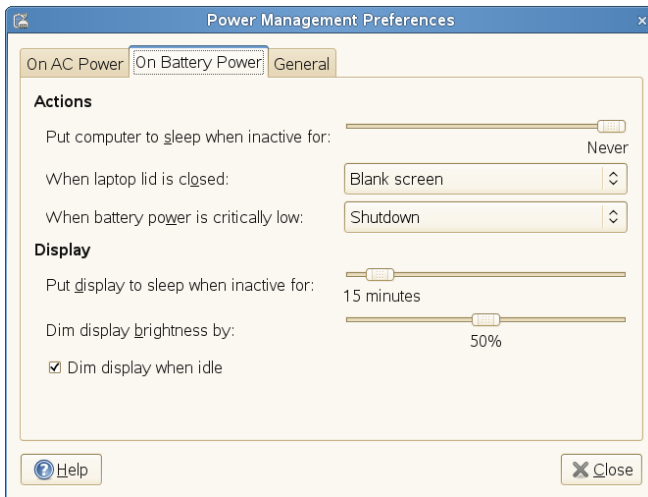
General Preferences

Use the options on the General Power Management Preference dialog box to configure miscellaneous options related to GNOME Power Manager's behavior, such as the actions to perform when the power or suspend buttons are pressed, if an icon is displayed in the Notification area, and if sound is used to notify you in the event on an error.

Figure 1.19 *GNOME Power Manager General Preferences*
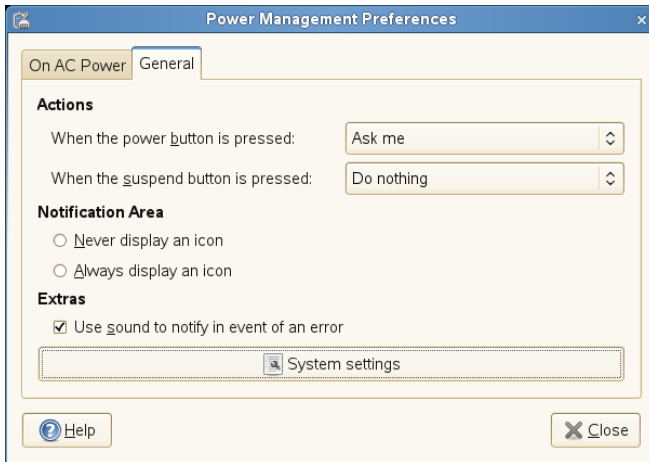
1.15.4 Session and System Idle Times

`gnome-screensaver` is a session daemon that monitors user input (if the mouse has or has not been moved, and if the keyboard has or has not been pressed), then starts a timeout. When the value of this timeout reaches the value set in Screensaver Preferences (using the *Regard this computer as idle after* option), then the login is marked as "session idle." At this point, GNOME Power Manager performs the session idle actions, such as enabling low-power mode, and lowering the laptop panel brightness.

Figure 1.20   *Changing the Session Idle Timeout in Screensaver Preferences*
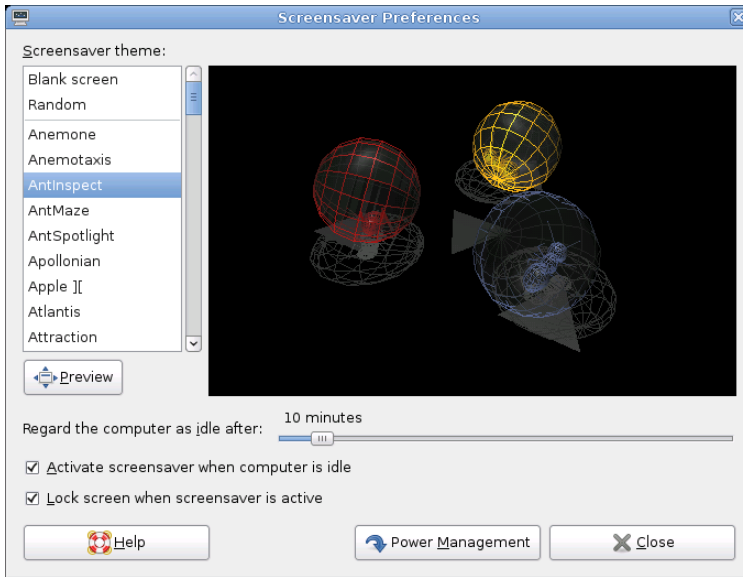
As soon as the session is marked idle, GNOME Power Manager starts it's own system timer. When the timeout set in GNOME Power Manager Preferences is reached, and the CPU load is idle, then the idle action is performed (such as turning off the screen, suspending, or hibernating the computer).

To make this clearer, the sliders in GNOME Power Manager Preferences are set to start at the value of the session-timeout + 1 minute, as GNOME Power Manager Preferences cannot logically trigger before the session is marked as idle. If you adjust the value of the session idle timeout in Screensaver Preferences, the start time of the sliders in GNOME Power Manager Preferences will change accordingly.

For more information, see Section 2.2.7, "Configuring the Screen Saver" (page 119).

1.16 Creating, Displaying, and Decompressing Archives

You can use the Archive Manager application (also known as File Roller) to create, view, modify, or unpack an archive. An archive is a file that acts as a container for

other files. An archive can contain many files, folders, and subfolders, usually in compressed form. Archive Manager application supports common formats, such as `zip`, `tar.gz`, `tar.bz2`, `lzh`, and `rar`. You can use Archive Manager to create, open, and extract a compressed non-archive file.

To start Archive Manager, click *Computer > More Applications > Utilities > File Roller*. If you already have a compressed file, double-click the filename in the Nautilus file manager to view the contents of the archive in Archive Manager.

Figure 1.21 *Archive Manager*
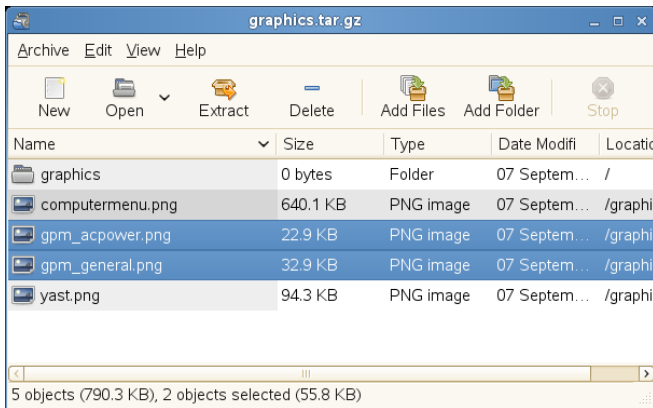
- Section 1.16.1, "Opening an Archive" (page 47)

- Section 1.16.2, "Creating Archives" (page 48)

- Section 1.16.3, "Extracting Files From an Archive" (page 49)

1.16.1 Opening an Archive

1 In Archive Manager, click *Archive > Open*.

2 Select the archive you want to open.

3 Click *Open*.

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

- The archive name in the window titlebar.

- The archive contents in the display area.

- The total number of files in the archive, and the size of the archive when uncompressed, in the statusbar.

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

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

1.16.2 Creating Archives

1 In Archive Manager, click *Archive > New*.

2 Specify the name and location of the new archive.

3 Select an archive type from the *Archive type* drop-down list.

4 Click *New*.

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

5 Add files and folders to the new archive:

5a Click *Edit > Add Files* or *Edit > Add a Folder*, then select the files or folders you want to add.

You cannot add folders to the archive with the *Add Files* dialog box. Use the *Add a Folder* dialog box.

5b Click *Add*.

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

You can also add files to an archive in a file manager window without opening Archive Manager. See for more information.

1.16.3 Extracting Files From an Archive

1 In Archive Manager, select the files that you want to extract.

2 Click *Archive > Extract.*

3 Specify the folder where Archive Manager will extracts the files.

4 Choose from the following extract options:

Option	Description
All files	Extracts all files from the archive.
Selected files	Extracts the selected files from the archive.
Files	Extracts from the archive all files that match the specified pattern.
Re-create folders	Reconstructs the folder structure when extracting the specified files.
	For example, you specify /tmp in the *Filename* text box and choose to extract all files. The archive contains a subfolder called doc. If you select the *Re-create folders* option, Archive Manager extracts the contents of the subfolder to /tmp/doc. If you do not select the *Re-create folders* option, Archive Manager does not create any subfolders. Instead, Archive Manager extracts all files from the archive, including files from subfolders, to /tmp.

Option	Description
Overwrite existing files	Overwrites any files in the destination folder that have the same name as the specified files.
	If you do not select this option, Archive Manager does not extract the specified file if an existing file with the same name already exists in the destination folder.
Do not extract older files	Extracts the specified file only if the destination folder does not contain the specified file, or if the destination folder contains an older version of the specified file. Archive Manager uses the modification date to determine which file is the most recent. If the version of the file in the archive is older, Archive Manager does not extract the specified file to the destination folder.
	This option is only available if the *Overwrite existing files* option is selected.
Password	This option is available only if the archive type supports encryption. Currently, only `.zip` and `.arj` archives support encryption.
	If the archive contains encrypted files, enter the required password in the *Password* field to decrypt the specified files during the extraction process. The required password is the encryption password that was specified when the archive was created.
Open destination folder after extraction	Displays the contents of the destination folder in a file manager window after the extraction of the specified files is completed.

5 Click *Extract*.

If all of the files in the archive are protected by a password, and you have not specified the password, Archive Manager displays an error dialog.

If some but not all of the files in the archive are protected by a password, and you have not specified the password, Archive Manager does not display an error dialog. However, Archive Manager extracts only the unprotected files to the new archive.

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

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

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

1.17 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 12). 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, then 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, then 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 1.22 *Save Screenshot Dialog Box*
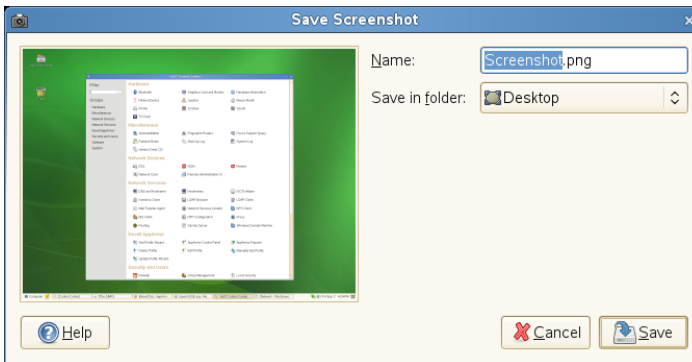
You can also use The GIMP to take screen shots. In The GIMP, click *File* > *Acquire* > *Screen Shot*, select *a Single Window* or *the Whole Screen*, then click *Grab*.

1.18 Viewing PDF Files

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

Figure 1.23 *Evince PDF Viewer*
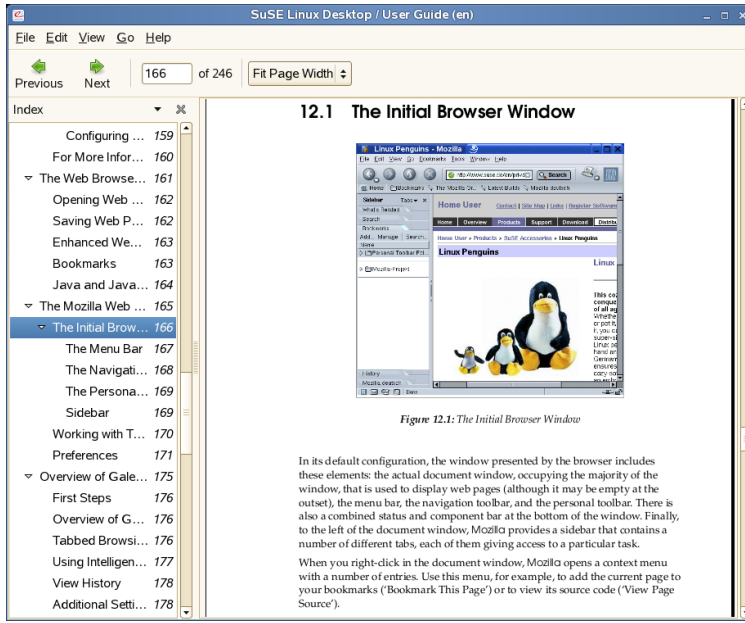
To open Evince, double-click a PDF file in a file manger window (or Web site), or press Alt + F2, type evince, then press Enter.

To view a PDF file in Evince, click *File > Open*, locate the desired PDF file, then click *Open*.

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.

1.19 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 > Multimedia > Volume Control*.

Figure 1.24   *GNOME Volume Control Dialog Box*
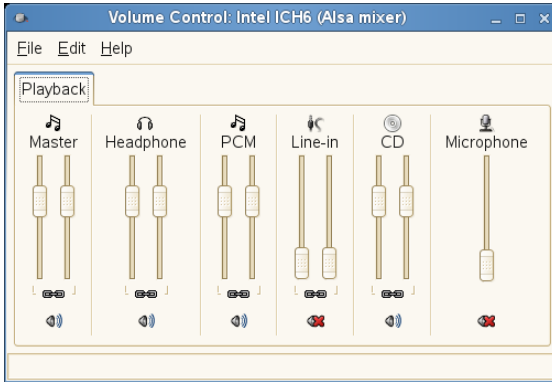
The GNOME Volume Control dialog box contains the following elements:

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 1.24, "GNOME Volume Control Dialog Box" (page 54).

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.

1.20 Using the Fingerprint Reader

With the ThinkFinger driver, openSUSE® 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. 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 and pam_thinkfinger are automatically installed. Use the command line tool tf-tool to register or verify a fingerprint for various users. root permission is required for this. The PAM module pam_thinkfinger supports user authentication by fingerprint for the following applications and actions (although you might not be prompted to swipe your finger in all cases):

- Logging in to GDM or a login shell

- Unlocking your screen on the GNOME desktop

- Starting YaST and the YaST modules in the GNOME control center

- Starting an application with root permission: sudo or gnomesu

- Changing to a different user identity with su or su - *username*

1.20.1 Registering a Fingerprint

Fingerprints can either be registered with YaST or from the command line. This section contains instructions on registering fingerprints from the command line. Currently, only one fingerprint per user can be registered.

For more detailed information about configuring and using fingerprint authentication, see Using_Fingerprint_Authentication [http://en.opensuse.org/].

1 Open a shell and log in as `root`.

2 Run `tf-tool --help` to view the available options.

3 To register a fingerprint for a certain user, enter

```
tf-tool --add-user login
```

`tf-tool` prompts the user to swipe a finger until three readable fingerprints have been gathered. The user's fingerprint data is then stored to `/etc/pam _thinkfinger/`*login*`.bir`.

4 If you want to use fingerprint authentication for starting YaST or the YaST modules in the GNOME control center, register a fingerprint for `root`, too.

5 To verify an existing fingerprint for a certain user, enter

```
tf-tool --verify-user login
```

6 Let the user swipe a finger. `tf-tool` compares the fingerprint to the print stored for this user and provides a message if the fingerprints match.

As soon as the user's fingerprint has been successfully registered, the user can choose to authenticate with either fingerprint or password.

To remove a user's fingerprint, delete the appropriate fingerprint file for this user: `/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`.

1.20.2 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`.

1.21 Obtaining Software Updates

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

For detailed information on how to install software updates with openSUSE Updater and how to configure openSUSE Updater, refer to the chapter about installing and removing software in *Start-Up*, available at http://www.novell.com/documentation/opensuse103/.

1.22 For More Information

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

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

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

Customizing Your Settings

2

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 (see Section 2.1.4, "Modifying Keyboard Preferences" (page 62) and Section 2.1.6, "Configuring the Mouse" (page 69))

- Desktop background (see Section "Changing the Desktop Background" (page 79))

- Screen saver (see Section 2.2.7, "Configuring the Screen Saver" (page 119))

- Password (see Section 2.3.3, "Changing Your Password" (page 125))

- Sounds (see Section 2.4.10, "Setting Sound Preferences" (page 138))

These settings and others can be changed in the Control Center. To access the Control Center, click *Computer > Control Center*. The Control Center is divided into the following four categories:

- Section 2.1, "Hardware" (page 60)

- Section 2.2, "Look and Feel" (page 74)

- Section 2.3, "Personal" (page 121)

- Section 2.4, "System" (page 126)

Figure 2.1   *GNOME Control Center*
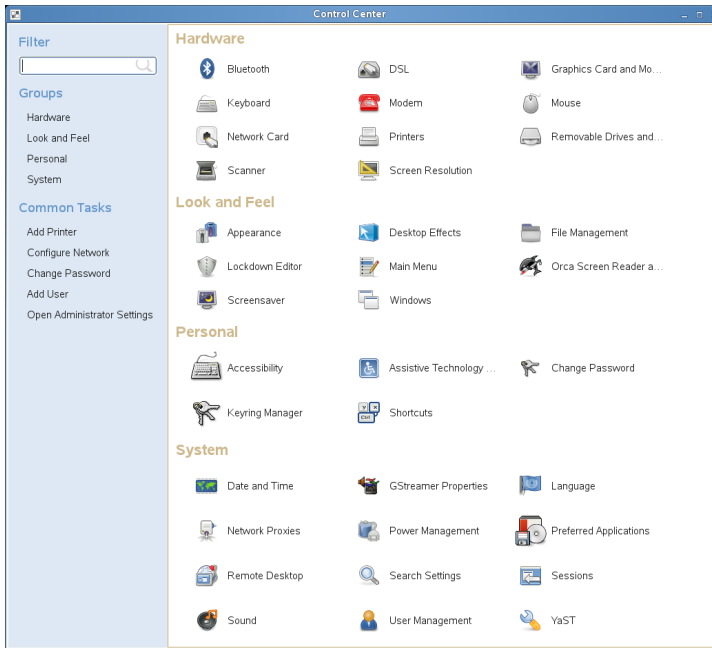
Some settings require that you use the YaST Control Center. These administrator settings includes most of the hardware, the graphical user interface, Internet access, security settings, user administration, software installation, and system updates and information. You need the `root` password to access the YaST Control Center.

For information on configuring administrator settings, refer to the Installation and Setup part of *Start-Up*, available at `http://www.novell.com/documentation/opensuse103/`.

2.1 Hardware

Hardware settings include the following:

- Section 2.1.1, "Configuring Bluetooth Services" (page 61)

- Section 2.1.2, "Configuring Your DSL Connection" (page 61)

2.1.1 Configuring Bluetooth Services

Bluetooth services enable you to connect wireless devices such as mobile phones and personal data assistants (PDAs) to your computer. Bluetooth wireless support includes automatic recognition of Bluetooth-enabled devices via the YaST central configuration and administration tool. Click *Computer > Control Center > Hardware > Bluetooth*, then set the configuration options that are appropriate for your device.

NOTE

Root privileges are required for configuring Bluetooth services.

2.1.2 Configuring Your DSL Connection

If you connect to a network over a DSL Connection, use this option to configure your connection. The DSL connection is configured in YaST.

1 Click *Computer > Control Center > Hardware > DSL*.

2 Enter the root password.

YaST opens.

3 Follow the instructions in YaST to configure DSL.

2.1.3 Configuring Your Graphics Card and Monitor

Your graphics card was configured for your monitor during installation. If you ever need to change these settings, click *Computer > Control Center > Hardware > Graphics Card and Monitor*, then set the appropriate options for your monitor.

2.1.4 Modifying Keyboard Preferences

Use the Keyboard Preferences tool to modify the autorepeat preferences for your keyboard and to configure typing break settings.

Click *Computer > Control Center > Hardware > Keyboard*.

You can set the following preferences:

• Keyboard

• Layouts

• Layout Options

• Typing Break

Configuring Keyboard Preferences

Use the Keyboard tabbed page to set general keyboard preferences.

Figure 2.2   *Keyboard Preferences Dialog—Keyboard Page*
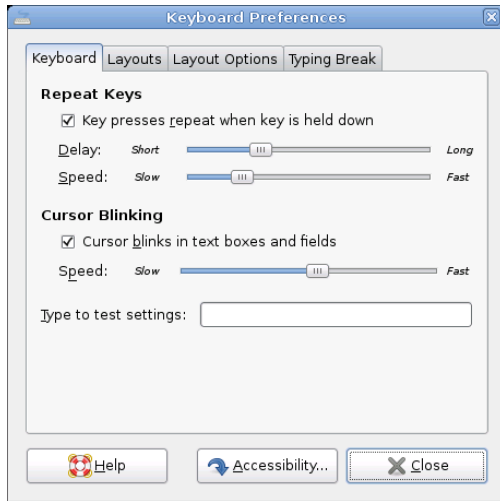
You can modify any of the following keyboard preferences:

Table 2.1   *Keyboard Preferences*

Option	Description
Key Presses Repeat When Key is Held Down	Enables keyboard repeat. The action associated with a key is performed repeatedly when you press and hold that key. For example, if you press and hold a character key, the character is typed repeatedly.
	Use the *Delay* option to select the delay from the time you press a key to the time that the action repeats.
	Use the *Speed* option to set the speed at which the action is repeated.

Option	Description
Cursor Blinks in Text Boxes and Fields	Lets the cursor blink in fields and text boxes.
	Use the slider to specify the speed at which the cursor blinks.
Type to Test Settings	The test area is an interactive interface that lets you see how the keyboard settings affect the display as you type. Type text in the test area to test the effect of your settings.

Click the *Accessibility* button to start the Keyboard accessibility preference tool.

Configuring Keyboard Layout Preferences

Use the Layouts tabbed page to set your keyboard layout.

Figure 2.3   *Keyboard Preferences Dialog—Layouts Page*
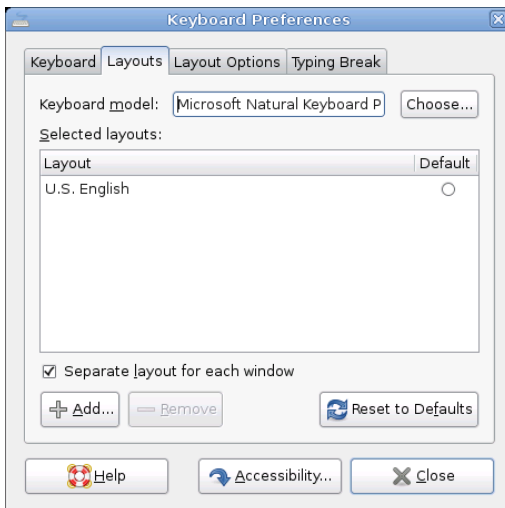
Select your keyboard model from the drop-down list, then use the navigational buttons to add or remove the selected layout to or from the list of available layouts.

You can select different layouts to suit different locales.

Click the *Accessibility* button to start the Keyboard accessibility preference tool.

Configuring Keyboard Layout Options

Use the Layout Options tabbed page to set your keyboard layout options. These options determine the behavior of certain keys and other keyboard settings.

Figure 2.4 *Keyboard Preferences Dialog—Layout Options Page*
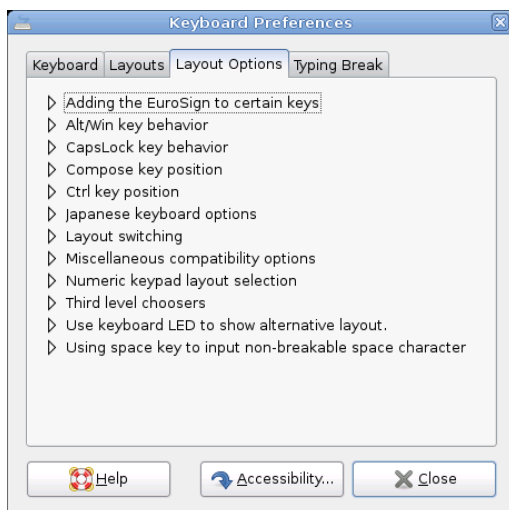
Select an option to open a submenu for that option, then select the desired settings. For most users, there is no need to change these settings.

Table 2.2 *Keyboard Layout Options*

Layout Option	Description
Adding the EuroSign to certain keys	If supported by your keyboard, add the Euro sign as the third-level character on the E, 5, or 2 key.
Alt/Win key behavior	Assign the behavior of the Unix Super, Meta, and Hyper modifier keys to the Alt and Windows keys.

Layout Option	Description
CapsLock key behavior	Choose from a number of that specify the behavior of the Caps Lock key.
Compose key position	Specifies the key to be used as the Compose key. Use the Compose key to combine two keystrokes to make one character, such as an accented character that is not on your keyboard layout.
Ctrl key position	Specify the key that acts as the Ctrl key. This is useful on older keyboards that do not have a Ctrl key.
Japanese keyboard options	Specify whether to use the Kana lock key and the NICOLA-F style backspace.
Layout switching	Specify the keys used to switch keyboard layouts.
Miscellaneous compatibility options	Specify whether shift works with the Num Lock key on a numerical keypad as it does on Windows. If not selected, use shift with the numerical keypad to obtain the reverse of the current behavior. For example, when Num Lock is off, the 8 key acts as an up arrow. Press Shift+8 to type the number 8.

Also, specify whether certain keyboard shutcuts are processed by the X windowing system rather than by GNOME. |
| Numeric keypad layout selection | Specify the layout of the numeric keypad. Most people should use the default, but some keypads require a non-standard layout. |
| Third level choosers | If a third-level chooser is specified, you can obtain a third character from certain keys in the same way that using Shift with a key produces a different key than pressing that key without shift. For example, if you add the Euro sign to the E key and set |

Layout Option	Description
	the left Windows key as the third-level chooser, then pressing Left-Windows+E produces the Euro sign.
Use keyboard LED to show alternative group	Specify that one of the keyboard lights indicates when you are using an alternative keyboard layout. That light will no longer indicate its standard function.
Using space key to input non-breakable space character	Configure how and at what level a non-breakable space is entered using the spacebar.

Click the *Accessibility* button to start the Keyboard accessibility preference tool. See Section 2.3.1, "Configuring Keyboard Accessibility Settings" (page 121) for more information.

Configuring Typing Break Preferences

Use the Typing Break tabbed page to set typing break preferences.

Figure 2.5   *Keyboard Preferences Dialog—Typing Break Page*
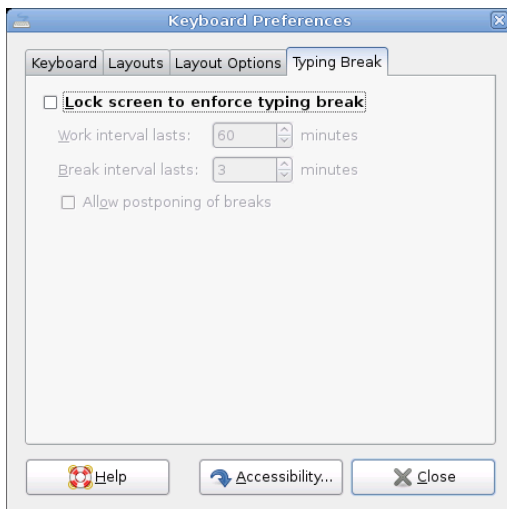
You can modify any of the following typing break preferences:

Table 2.3   *Typing Break Preferences*

Option	Description
Lock Screen to Enforce Typing Break	Locks the screen when you are due a typing break.
Work Interval Lasts	Lets you specify how long you can work before a typing break occurs.
Break Interval Lasts	Lets you specify the length of your typing breaks.
Allow Postponing of Breaks	Lets you postpone typing breaks.

Click the *Accessibility* button to start the Keyboard accessibility preference tool. See Section 2.3.1, "Configuring Keyboard Accessibility Settings" (page 121) for more information.

2.1.5 Configuring a Modem

If you connect to a network over a modem, use this option to configure your modem. The modem is configured in YaST.

NOTE

Root privileges are required for configuring your modem.

---

1 Click *Computer > Control Center > Hardware > Modem*.

2 Enter the root password.

YaST opens.

3 Follow the instructions in YaST to configure the modem.

2.1.6 Configuring the Mouse

Use the Mouse Preference tool to configure your mouse for right-hand use or for left-hand use. You can also specify the speed and sensitivity of mouse movement.

Click *Computer > Control Center > Hardware > Mouse*.

You can customize the settings for the Mouse Preference tool in the following areas:

- Buttons

- Motion

Configuring Button Preferences

Use the Buttons tabbed page to specify whether the mouse buttons are configured for left-hand use. You can also specify the delay between clicks for a double-click.

Figure 2.6 *Mouse Preferences Dialog—Buttons Page*
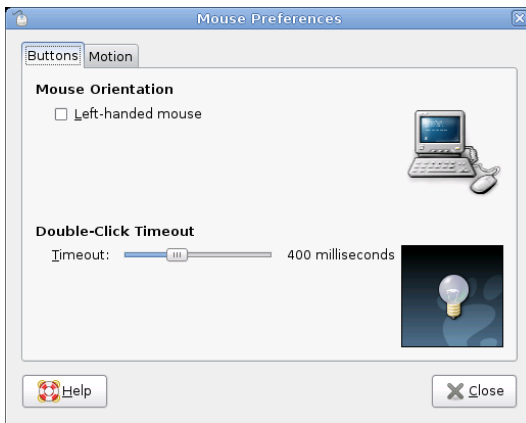
The following table lists the mouse button preferences you can modify.

Table 2.4 *Mouse Button Preferences*

Option	Description
Left-handed Mouse	Configures your mouse for left-hand use, swapping the functions of the left mouse button.
Double-Click Timeout	Use the slider to specify the amount of time that can pass between clicks when you double-click. If the interval between the first and second clicks exceeds the time that is specified here, the action is not interpreted as a double-click.

Configuring Motion Preferences

Use the Motion tabbed page to set your preferences for mouse movement.

Figure 2.7 *Mouse Preferences Dialog—Motion Page*
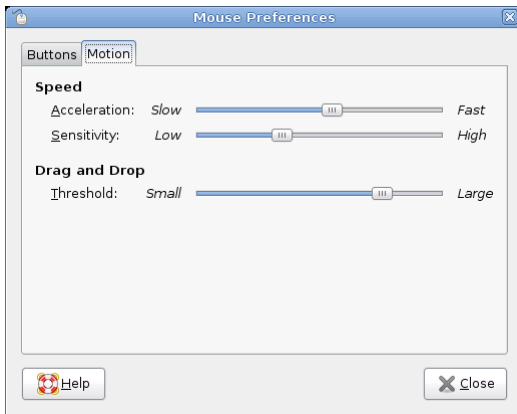
The following table lists the mouse motion preferences you can modify.

Table 2.5 *Mouse Motion Preferences*

Option	Description
Acceleration	Use the slider to specify the speed at which your mouse pointer moves on your screen when you move your mouse.

Option	Description
Sensitivity	Use the slider to specify how sensitive your mouse pointer is to movements of your mouse.
Threshold	Use the slider to specify the distance that you must move an item before the move action is interpreted as a drag and drop action.

2.1.7 Configuring a Network Card

If you connect to a network over a network card, use this option to configure your connection. The network card is configured in YaST.

NOTE

Root privileges are required for configuring your network card.

1 Click *Computer > Control Center > Hardware > Network Card*.

2 Enter the root password.

YaST opens.

3 Follow the instructions in YaST to configure the network card.

2.1.8 Installing and Configuring Printers

Use the Printers module to install and configure printers.

To start the Printers module, click *Computer > Control Center > Hardware > Printers*.

Figure 2.8   *Printers Dialog*
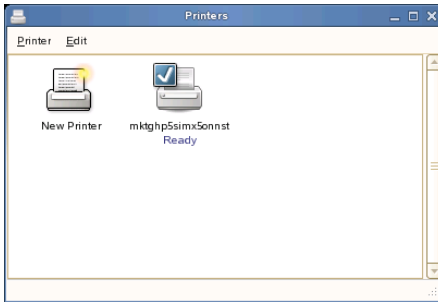
2.1.9 Configuring Removable Drives and Media

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*.

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.

2.1.10 Configuring a Scanner

The Scanner configuration enables you to attach and configure a scanner, or to remove an already-attached scanner.

NOTE

Scanner configuration is done in YaST2 and requires root privileges.

To open YaST2 and configure a scanner, click *Computer > Control Center > Hardware > Scanner*. Refer to the instructions on the *Scanner Configuration* screen for information about the available options.

2.1.11 Specifying Screen Resolution Settings

Use this module to specify the resolution settings for your screen, including Resolution and Refresh Rate.

Click *Computer > Control Center > Hardware > Screen Resolution*.

Figure 2.9   *Screen Resolution Preferences Dialog*
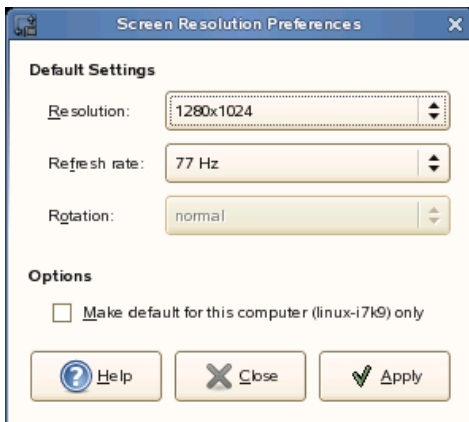
The following table lists the screen resolution preferences you can modify.

Table 2.6   *Screen Resolution Preferences*

Option	Description
Resolution	Select the resolution (in pixels) to use for the screen.
Refresh Rate	Select the refresh rate to use for the screen.
Rotation	Select the rotation mode for your screen if you use a nonstandard monitor.
Make Default for This Computer Only	Makes the screen resolution settings the default settings only for the computer that you are logged in to.

If you cannot find a setting you want, you might need to use the Administrator Settings to reconfigure your graphics card and monitor settings. See Setting Up Graphics Card and Monitor [http://www.novell.com/documentation/opensuse103/opensuse103_startup/data/cha_y2_hw_graph.html] in the *openSUSE 103 Start-Up Guide* for more information.

2.1.12 Configuring a Touchpad

Use this module to configure the behavior of a touchpad. This module is only available on computers containing touchpads, such as laptops. In most cases, the default behavior should remain unchanged. Click *Computer* > *Control Center* > *Hardware* > *Touchpad* to start the Touchpad module.

2.2 Look and Feel

Look and Feel settings include the following:

- Section 2.2.1, "Customizing the Desktop Appearance" (page 75)

2.2.1 Customizing the Desktop Appearance

Use the Appearance module to customize the look of the desktop. With this module you can change the desktop theme, fonts, and background, as well as changing the look of menus and the main toolbar.

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 > Appearance*, then click the *Theme* tab.

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. *Customize* opens another dialog where you can customize the style of single desktop elements, like window content, window borders, pointers, and icons. Making changes and leaving the dialog by clicking *Close* switches the theme to Custom Theme. Click *Save As* 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 the Install theme.

- Section "Creating a Custom Theme" (page 76)

- Section "Installing a New Theme" (page 78)

- Section "Deleting a Theme" (page 78)

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 > Appearance*, then click the *Theme* tab.

2 Select a theme from the list of themes, then click *Customize*.

The following settings can be customized:

- 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.

- Colors

The color settings determine the colors of various screen elements. Set the colors to provide an appearance that most appeals to you.

- Window Border

  The window border 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.

- Icons

  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.

- Pointer

  You can set the appearance and size of your mouse pointer so it is appealing and easy to see with your chosen theme.

3 Select the controls option that you want to use in the custom theme from the list in the *Controls* tab.

4 Click the *Colors* tab, then select the colors you want to use for the available interface elements.

5 Click the *Window Border* tab, then select the window frame option that you want to use in the custom theme.

6 Click the *Icons* tab, then select the icons option that you want to use in the custom theme.

7 Click the *Pointer* tab, then select the desired mouse pointer.

The following table lists the mouse pointer preferences you can modify.

Table 2.7 *Pointer Options*

Option	Description
Cursor Theme	Displays the available cursor themes.

Option	Description
Highlight the Pointer When You Press Ctrl	Enables a mouse pointer animation when you press and release Ctrl. This feature can help you locate the mouse pointer.

8 Click *Close > Save As*.

The Save Theme to Disk dialog is displayed.

9 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.

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 > Appearance*, then click the *Theme* tab.

2 Click *Install*.

3 Browse to the location of the theme archive file, select the archive, then click *Open*.

4 Click *Apply New Theme* to apply the theme.

or

Click *Keep Current Theme* to continue using the currently applied theme.

Deleting a Theme

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

1 Click *Computer > Control Center > Look and Feel > Appearance*, then click the *Theme* tab.

2 Select the theme you want to delete.

3 Click *Delete*.

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 > Appearance*, then click the *Background* tab.

2 Set the background preferences the way that you want them.

The following settings can be changed:

Table 2.8 *Background Preferences*

Option	Description
Desktop Wallpaper	Displays an image of your choice on the desktop.
Style	Determines what processing steps should be applied to the selected image to adapt it optimally to the current screen resolution. To specify how to display the image, select one of the following options from the *Style* drop-down list:

Option	Description
	• **Centered:** Displays the image in the middle of the desktop.
	• **Fill Screen:** Enlarges the image to cover the desktop and maintains the relative dimensions of the image.
	• **Scaled:** Enlarges the image until the image meets the screen edges and maintains the relative dimensions of the image.
	• **Tiled:** Repeats the image over the entire screen.
Add Wallpaper	Opens a dialog where you can select an image file to use as the background picture.
Remove	Removes a Desktop Wallpaper after you select it and then click *Remove*.
Desktop Colors	Lets you specify a color scheme using the options in the *Desktop Color* drop-down list and the color selector buttons. You can specify a color scheme using any of the following options:
	• *Solid Color* specifies a single color for the desktop background. To select a color, click *Color*. In the Pick a Color dialog, select a color and then click *OK*
	• *Horizontal Gradient* creates a gradient effect from the left screen edge to the right screen edge. Click *Left Color* to display the Pick a Color dialog, then select the color that you want to appear at the left edge.

Option	Description
	Click *Right Color*, then select the color that you want to appear at the right edge.
	• *Vertical Gradient* creates a gradient effect from the top screen edge to the bottom screen edge.
	Click *Top Color* to display the Pick a Color dialog, then select the color that you want to appear at the top edge.
	Click *Bottom Color*, then select the color that you want to appear at the bottom edge.

3 When you are satisfied with your choices, click Close.

Your desktop immediately changes to show the new settings.

Configuring Fonts

You can select the fonts to use in your applications, windows, terminals, and desktop. To set the Font preferences, click *Computer > Control Center > Look and Feel > Appearance*, then click the *Fonts* tab.

Figure 2.10 *Font Preferences Dialog*
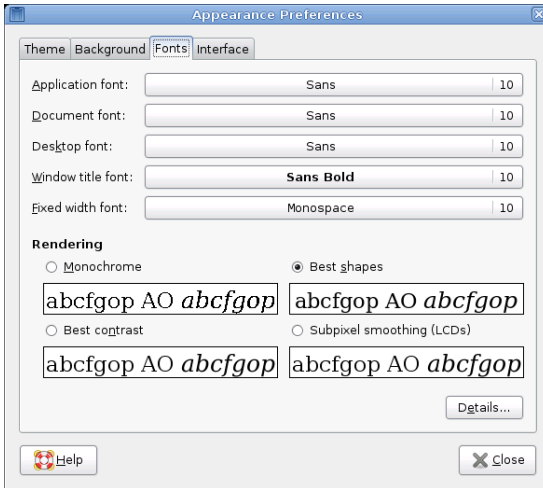
The upper part of the dialog shows the fonts selected for applications, documents, the desktop, window titles, and a fixed-width font for terminals. Click one of the buttons to open a selection dialog where you can set the font family, style, and size.

To specify how to render fonts on your screen, select one of the following options:

- **Monochrome:**   Renders fonts in black and white only. The edges of characters might appear jagged in some cases because the characters are not antialiased. *Antialiasing* is an effect that is applied to the edges of characters to make the characters look smoother.

- **Best Shapes:**   Antialiases fonts where possible. Use this option for standard Cathode Ray Tube (CRT) monitors.

- **Best Contrast:**   Adjusts fonts to give the sharpest possible contrast and antialiases fonts so that characters have smooth edges. This option might enhance the accessibility of the GNOME desktop to users with visual impairments.

- **Subpixel Smoothing (LCDs):**   Uses techniques that exploit the shape of individual Liquid Crystal Display (LCD) pixels to render fonts smoothly. Use this option for LCD or flat-screen displays.

Click *Details* to specify further details of how to render fonts on your screen:

- **Resolution (Dots Per Inch):**   Use the spin box to specify the resolution to use when your screen renders fonts.

- **Smoothing:**   Select one of the options to specify how to antialias fonts.

- **Hinting:**   Select one of the options to specify how to apply hinting to improves the quality of fonts at small sizes and at low screen resolutions.

- **Subpixel Order:**   Select one of the options to specify the subpixel color order for your fonts. Use this option for LCD or flat-screen displays.

Configuring Menus and Toolbars

You can configure the appearance and behavior of menus and toolbars. Click *Computer > Control Center > Look and Feel > Appearance*, then click the *Interface* tab.

Showing Icons in Menus

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

Defining New Keyboard Shortcuts

If you want to be able to define new keyboard shortcuts for menu items, select *Editable menu shortcut keys*. 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 Backspace or Delete.

IMPORTANT

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 assignment 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.

Configuring Placement of Toolbar Button Labels

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.

2.2.2 Configuring Desktop Effects

Xgl is an Xserver architecture that lets you turn your desktop into a rotating 3-D cube, tile windows so they don't 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 2.11   *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 openSUSE 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 graphics 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.
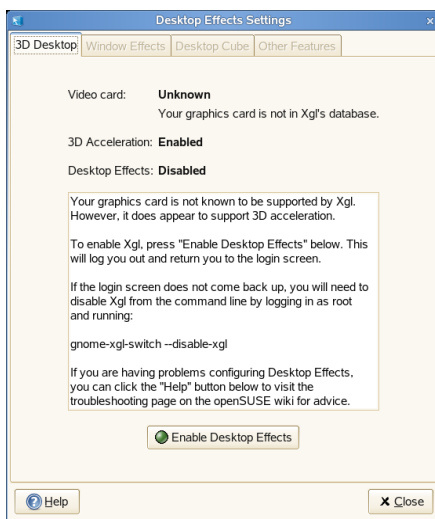
3 After your system is configured for Xgl, click *Enable Desktop Effects*.

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 87).

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 87)

- Section "Desktop Cube" (page 89)

- Section "Other Features" (page 91)

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 2.12   *Window Effects Tabbed Page*
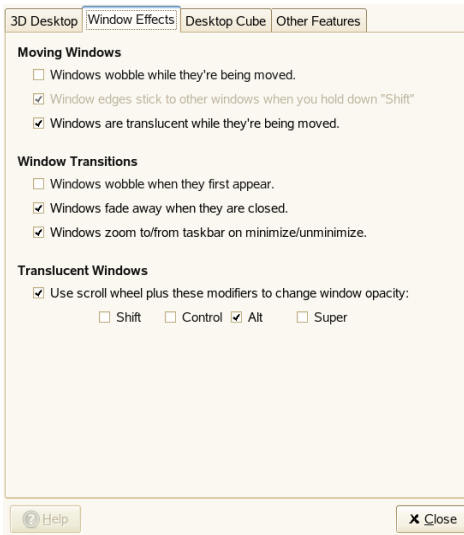
Moving Windows

    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 2.13   Translucent Window
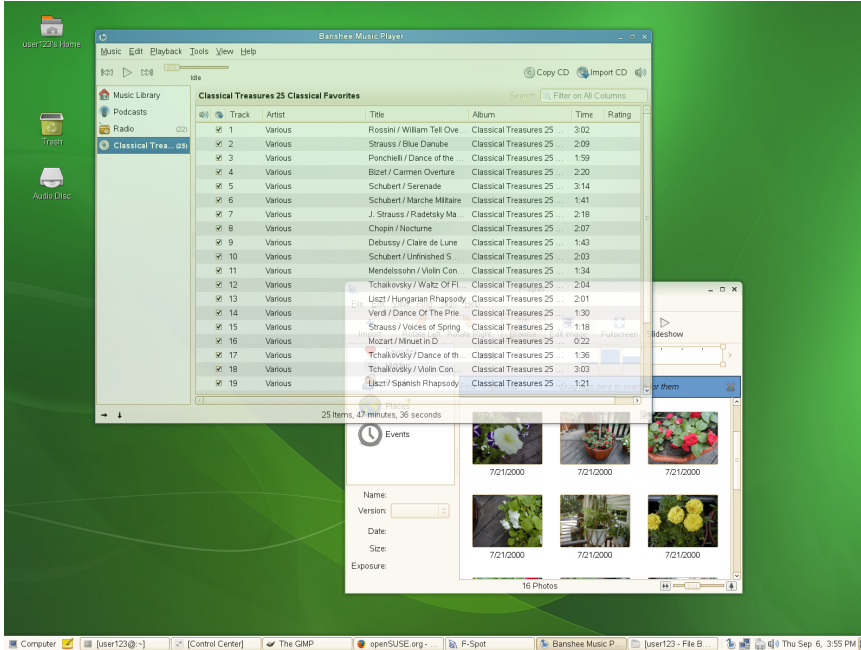
Desktop Cube

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 2.14 *Desktop Cube Tabbed Page*
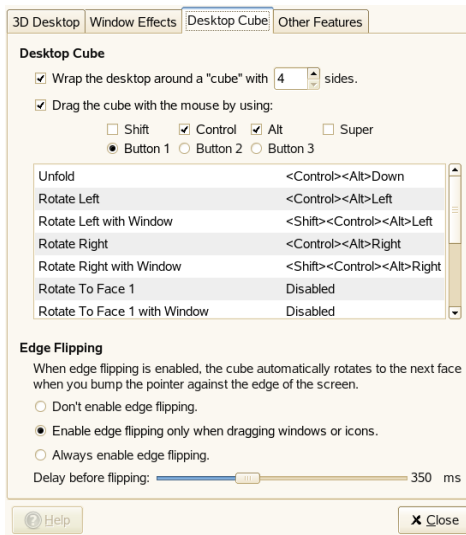
Desktop Cube

> 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+Left arrow and Ctrl+Alt+Right arrow, 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+Left-arrow or Right-arrow 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 97).

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 2.15 *Other Features Tabbed Page*
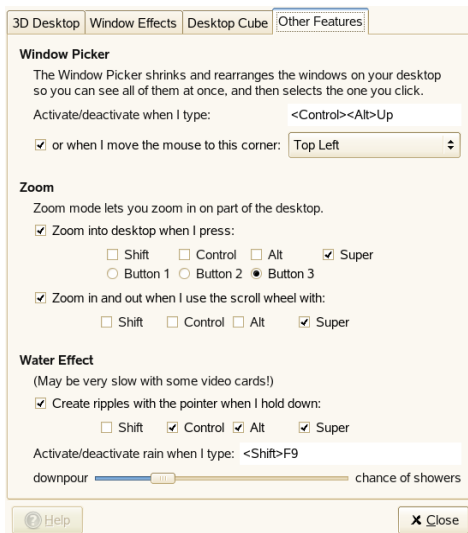
Window Picker

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+Up-arrow 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 2.16   *Application Tiling*
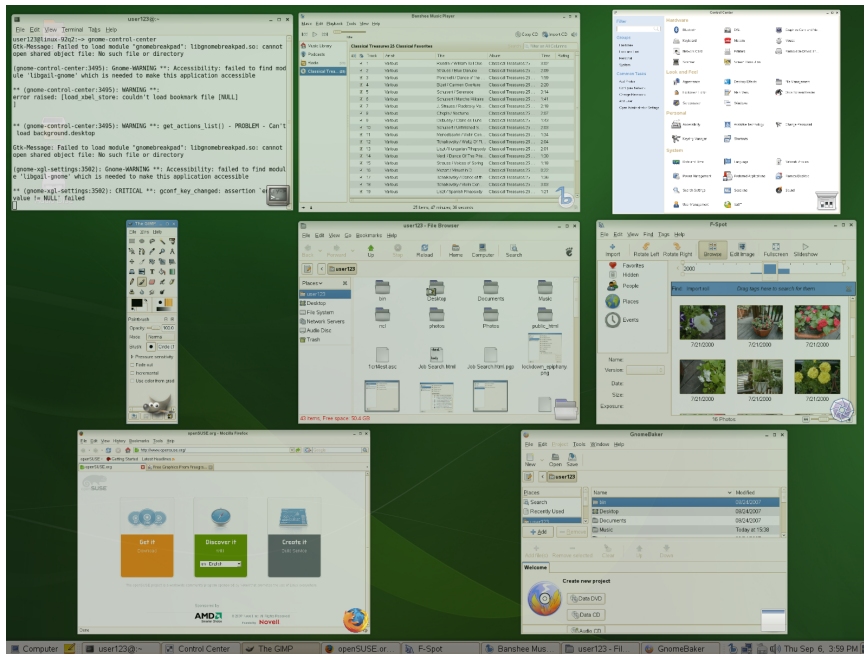
Zoom

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 of 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 2.17   Water Effect
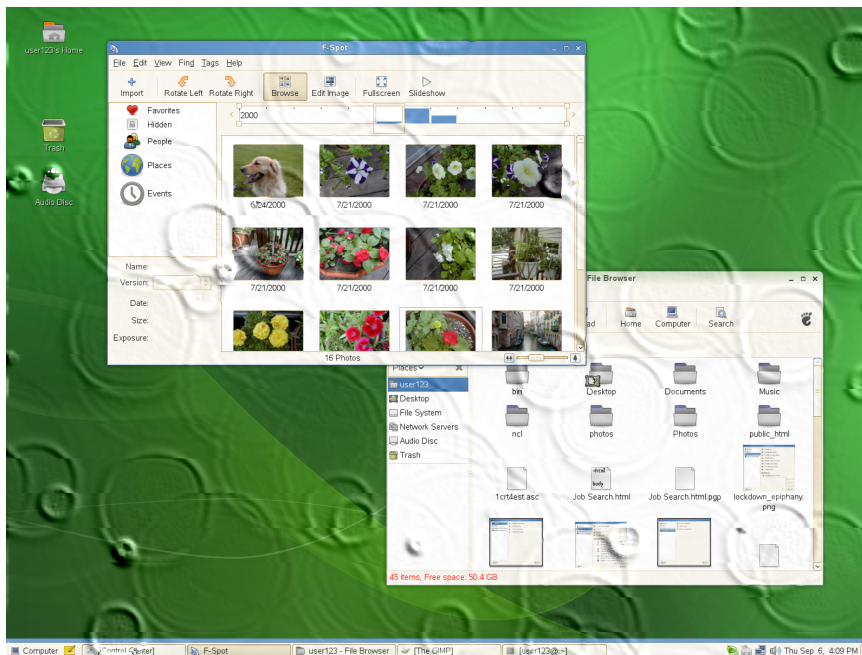
Xgl Shortcuts

Table 2.9, "Desktop Effects Shortcuts" (page 94) 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 87).

Table 2.9 *Desktop Effects Shortcuts*

Effect	Shortcut
Activate or deactivate rain effect	Shift+F9
Create ripples with the mouse pointer	Ctrl+Alt+Super key (Windows key) and move the mouse pointer
Panoramic view of all desktop cubes	Ctrl+Alt+Down-arrow (use the Left- and Right- arrows to scroll)
Rotate desktop cube	Ctrl+Alt+Left-arrow or Right-arrow 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+Left-arrow or Right-arrow
Switch windows (thumbnail view)	Alt+Tab
Tile windows	Ctrl+Alt+Up-arrow 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)+Button 3
Zoom in manually	Super key (Windows key)+scroll wheel up

Effect	Shortcut
Zoom out manually	Super key (Windows key)+scroll wheel down

More Desktop Effects

You can also do these things with Xgl:

- Section "Switching Tasks" (page 95)

- Section "Unfolding the Cube " (page 96) ???

- Section "Displaying a Skydome Image Behind the Cube " (page 97)

Switching Tasks

Press Alt+Tab 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 2.18 *Thumbnail View*
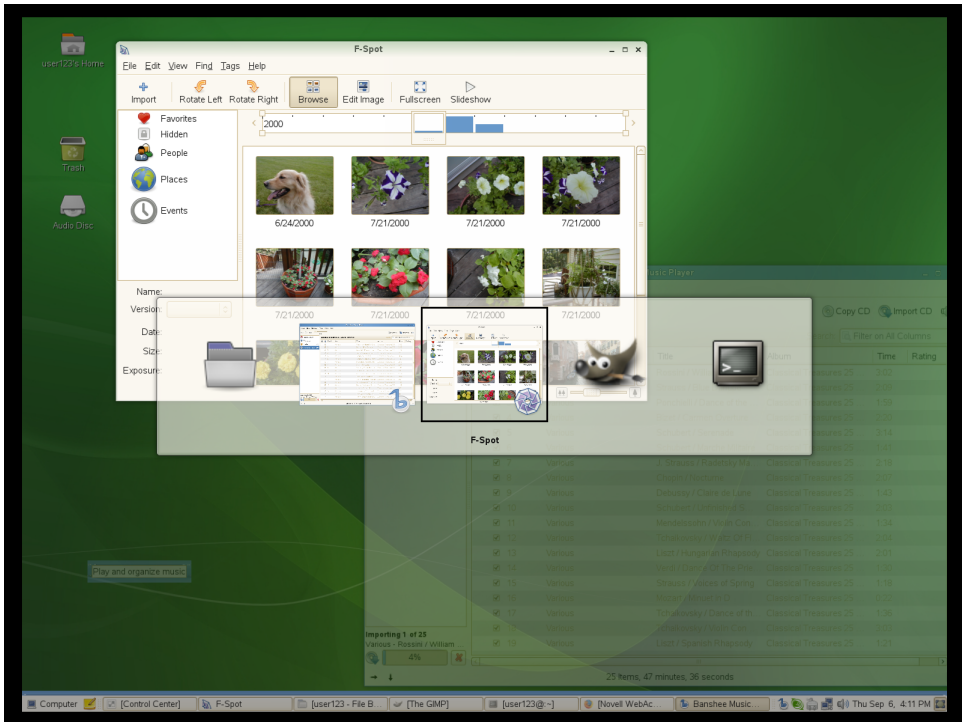
Unfolding the Cube

Press Ctrl+Alt+Down-arrow to unfold the desktop cube, opening a panoramic view of all your desktops. Your desktop cube is laid out like a filmstrip on your screen. You can use the Left-arrow and Right-arrow to select a different screen. This is similar to the switcher feature (Alt+Tab), but lets you view a thumbnail of your entire desktop instead of only your active windows.

Figure 2.19 *Panoramic View of All Desktop Cubes*
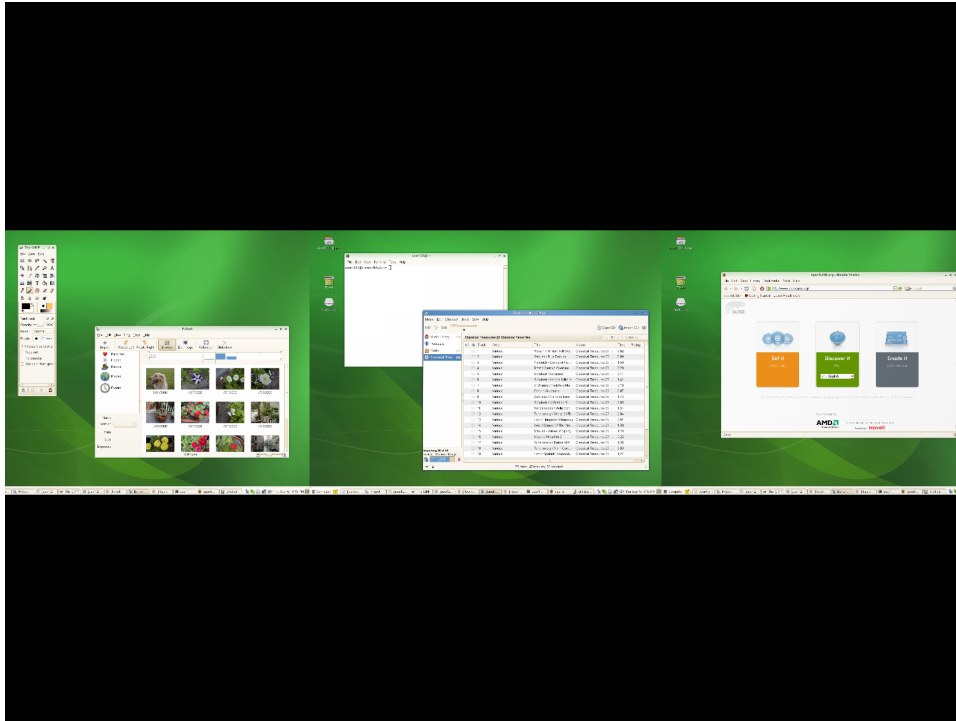
Displaying a Skydome Image Behind the Cube

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*, then 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 2.20   *Skydome Image*
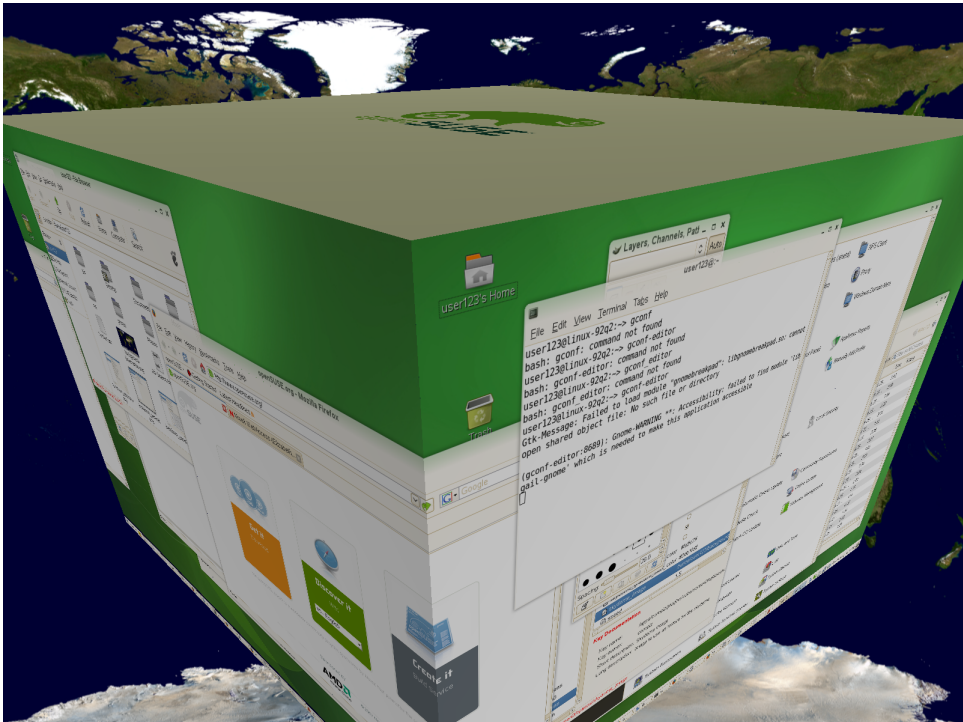
2.2.3 File Management Preferences

You can change the File Manager preferences in the Control Center by clicking *Computer > Control Center > Look and Feel > File Management*, or from Nautilus by clicking *Edit > Preferences*. The configurable preferences are organized on five tabs:

Views

To configure the appearance of the File Manager, click *Computer > Control Center > Look and Feel > File Management* (or *Edit > Preferences* from Nautilus), then click the *Views* tab.

Figure 2.21 *File Manager Views Dialog Box*
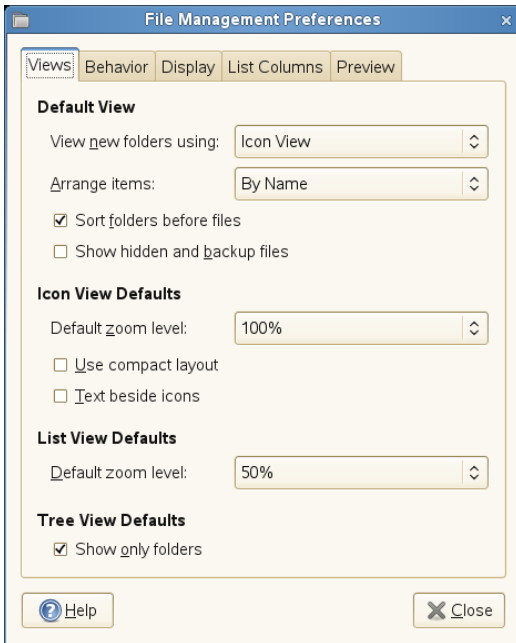
Select from the following options:

Table 2.10 *File Manager Views Options*

Section	Option	Description
Default View	View new folders using	Determines whether new folders are displayed as icons or as a list.
	Arrange items	Sets the order in which items are listed. 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

Section	Option	Description
		selected (the default), hidden and backup files do not appear.
Icon View Defaults	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 beneath them.
List View Defaults	Default zoom level	Determines the size of items that appear in the list view.
Tree View Defaults	Show only folders	When selected, displays folders in the tree in the side pane.

Behavior

To configure the behavior of the File Manager, click *Computer > Control Center > Look and Feel > File Management* (or *Edit > Preferences* from Nautilus), then click the *Behavior* tab.

***Figure 2.22**   File Manager Behavior Dialog Box*
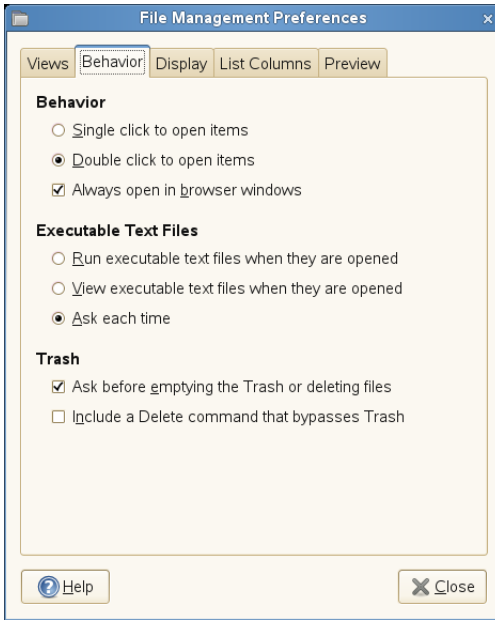
Select from the following options:

***Table 2.11**   File Manager Behavior Options*

Option	Description
Single click to activate items	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.
Double click to activate items	Performs the default action for an item when you double-click the item.
Always open in browser windows	Opens the File Manager in Browser mode whenever you open it.

Option	Description
Run executable text files when they are opened	Runs an executable file when you open the file. An executable file is a text file than can execute (that is, a shell script).
View executable text files when they are opened	Displays the contents of an executable file when you open the file.
Ask each time	Displays a dialog when you click an executable file. The dialog asks whether you want to execute the file or display the file.
Ask before emptying the Trash or deleting files	Displays a confirmation message before the Trash is emptied or before files are deleted.
Include a Delete command that bypasses Trash	Adds a *Delete* menu item to the *Edit* 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 *Delete*, the item is immediately deleted from your file system.

Display

To configure the way icon captions and dates appear in the File Manager, click *Computer > Control Center > Look and Feel > File Management* (or *Edit > Preferences* from Nautilus), then click the *Display* tab.

Figure 2.23 *File Manager Display Dialog Box*
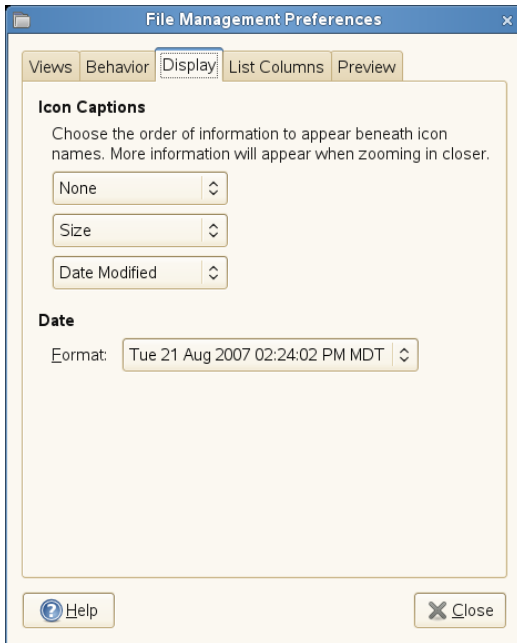
Select from the following options:

Table 2.12 *File Manager Display Options*

Option	Description
Icon Captions	Sets the order of information to appear beneath icon names. You can set three information types, in the order that they appear.
Date	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 *Computer > Control Center > Look and Feel > File Management* (or *Edit > Preferences* from Nautilus), then click the *List Columns* tab.

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

Figure 2.24 *File Manager List Columns Dialog Box*
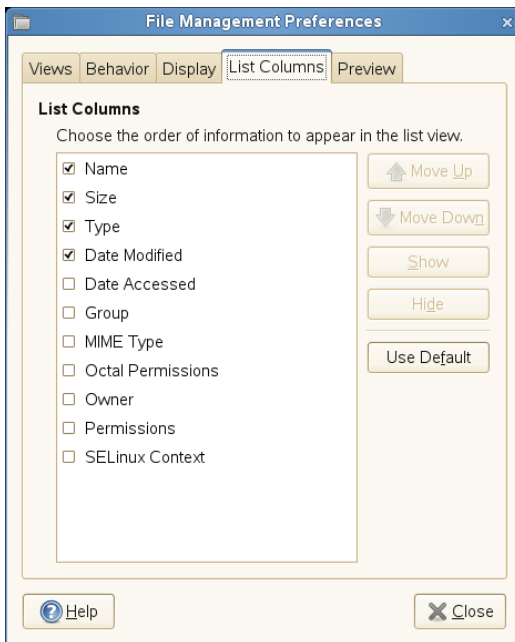
Preview

To configure how file previews appear in the File Manager and whether folders show the number of items they contain, click *Computer > Control Center > Look and Feel > File Management* (or *Edit > Preferences* from Nautilus), then click the *Preview* tab:

Figure 2.25   *File Manager Preview Dialog Box*
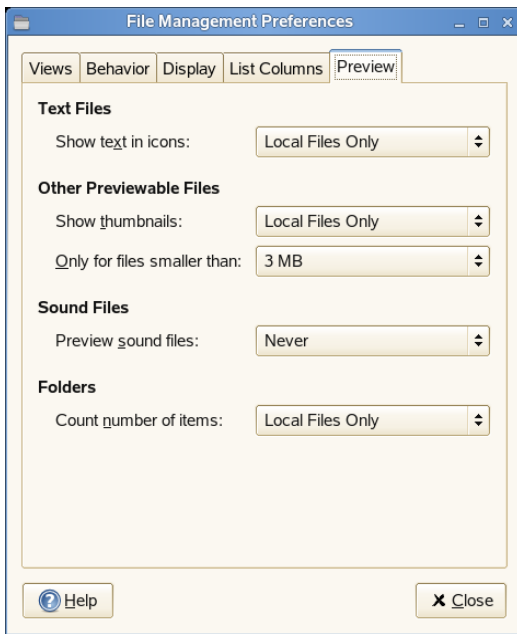
Select from the following options:

Table 2.13   *File Manager Preview Options*

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

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

2.2.4 Locking Desktop Functions

The Lockdown Editor lets you disable (lockdown) certain desktop functions. This is useful if you want to restrict the actions that users can perform on a computer. For example, you might want to prevent command line operations on a computer that is for public use at a trade show.

To start the Lockdown Editor, click *Computer > Control Center > Look and Feel > Lockdown Editor.*

You will see a window with a list of options on the left. Each option represents a different category of desktop settings that can be disabled.

- Section "General" (page 108)

- Section "Panel" (page 109)

- Section "Epiphany Web Browser" (page 110)

- Section "GNOME Screensaver" (page 111)

When the Lockdown Editor starts, it tries to connect to the GConf mandatory configuration source (`xml:merged:$prefix/etc/gconf/gconf.xml.mandatory`). If you have access to this configuration source, a lock icon is displayed next to the checkbox for each setting. Click the lock to specify if the setting is mandatory. If the setting is mandatory, regular users will not be able to change or override the setting. If you don't have access to the mandatory configuration source, the lock icon does not appear. In this case, all disabled settings are stored in the user's default configuration source and can be modified later using other tools such as gconf-editor or gconftool-2. For more information about GConf and mandatory configuration sources, see "GConf Configuration Sources" [http://www.gnome.org/learn/admin-guide/

latest/gconf-24.html#gconf-26] in the *GNOME Desktop System Adminis-tration Guide*.

General

Use the options in the General category to disable printing, access to the command line, and saving to disk.

Figure 2.26   General Lockdown Editor Settings
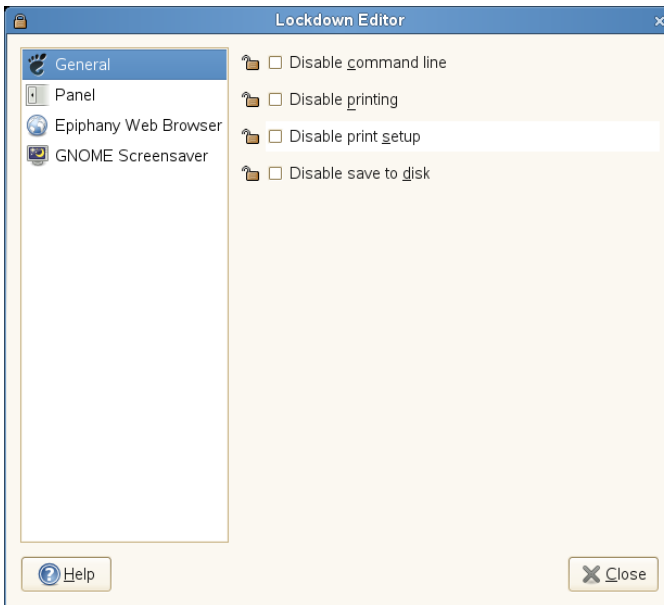
Disable command line
> Prevents the user from accessing the terminal or specifying a command line to be executed. This options also disables access to the panel's *Run Application* dialog box.

Disable printing
> Prevents the user from printing. This option disables access to the *Print* dialogs boxes in all applications.

Disable print setup
> Prevents the user from modifying print settings. This option disables access to the *Print Setup* dialog boxes in all applications.

Disable save to disk
> Prevents the user from saving files to disk. This option disables access to the *Save as* dialog boxes in all applications.

Panel

Use the options in the Panel category to lock down the panel, disable the panel applets you specify, and disable the force quit, lock screen, and log out options.

Figure 2.27   *Panel Lockdown Editor Settings*
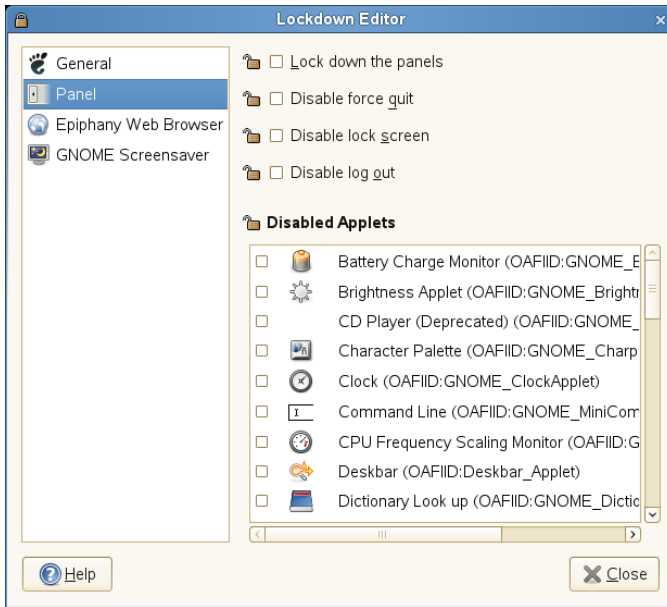
Lock down the panels
> If this option is selected, the panel will not allow any changes to be made to the configuration of the panel. Individual applets might need to be locked down separately, however. The panel must be restarted for this to take effect.

Disable force quit
> If this option is selected, the panel will not allow a user to force an application to quit (by removing access to the force quit button).

Disable lock screen
> If this option is selected, the panel will not allow a user to lock their screen (by removing access to the lock screen menu entries).

Disable log out
> If this option is selected, the panel will not allow a user to log out (by removing access to the log out menu entries).

Disable Applets
> .Disables the applets selected in the list.

Epiphany Web Browser

Use the options in the Epiphany Web Browser category to control access to features in Epiphany.

Figure 2.28   *Epiphany Web Browser Lockdown Editor Settings*
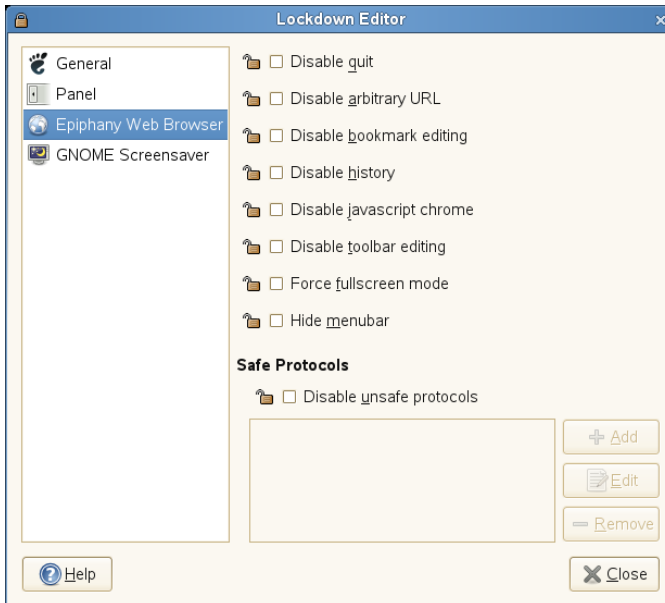
Disable quit
   Prevents the user from closing Epiphany.

Disable arbitrary URL
   Prevents the user from typing a URL in Epiphany.

Disable bookmark editing
   Prevents the user from adding or editing bookmarks.

Disable history
   Disables all historical information by disabling back and forward navigation, not
   allowing the history dialog box, and hiding the most used bookmarks list.

Disable javascript chrome
   Disables JavaScript's control over window chrome.

Disable toolbar editing
   Prevents the user from editing toolbars.

Force fullscreen mode
   Locks Epiphany in fullscreen mode.

Hide menubar
   Hides the menubar by default. The menubar can still be accessed using F10.

Disable unsafe protocols
   Disables loading of content from the unsafe protocols you specify. Safe protocols
   are http and https.

GNOME Screensaver

Use the options in the GNOME Screensaver category to lock the screen when the
screensaver goes active, enable or disable the log out after a delay option in the unlock
dialog box, and to enable or disable the switch user option in the unlock dialog box.

Figure 2.29   *GNOME Screensaver Editor Settings*
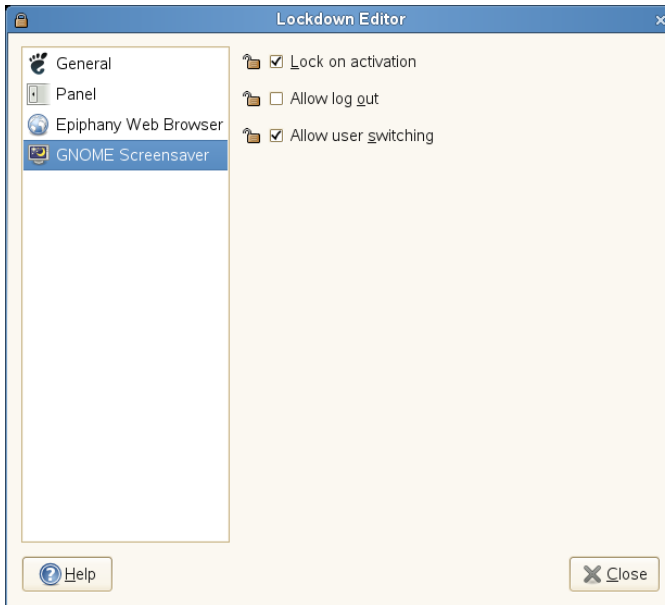
Lock on activation
> Select this option to lock the screen when the screensaver goes active.

Allow log out
> Select this option to offer an option in the unlock dialog box to log out after a delay.

Allow user switching
> Select this option to offer an option in the unlock dialog box to switch to a different user.account.

2.2.5 Customizing the Main Menu

Use the Main Menu application to customize the GNOME Main menu. To start this application, click *Computer > Control Center > Look and Feel > Main Menu*.

> **NOTE**
>
> Changes you make to the Main menu are not overwritten during a subsequent system update. Changes are applied after the latest menu view is generated.

This section contains the following information:

-

Editing the Main Menu

This section describes the following ways you can edit the Main menu:

-

-

-

-

-

-

-

-

> **IMPORTANT**
>
> The first time you use Main Menu, changes to the menu do not take effect until you log out and log back in. After the first time, changes appear immediately when you make them.

> **NOTE**
>
> Some features, such as the ability to nest groups and insert separators, apply only if you use older versions of the GNOME menu.

Finding Menu Items

The *Main Menu* window is arranged with the Main menu submenus in the *Menus* list on the left and the items in the selected menu in the *Items* list on the right. Groups in a submenu are nested below that submenu. To find an item, click the arrow next to a submenu in the *Menus* list, select the group containing that item, then locate the item in the *Items* list.

Figure 2.30   *Main Menu Editor*
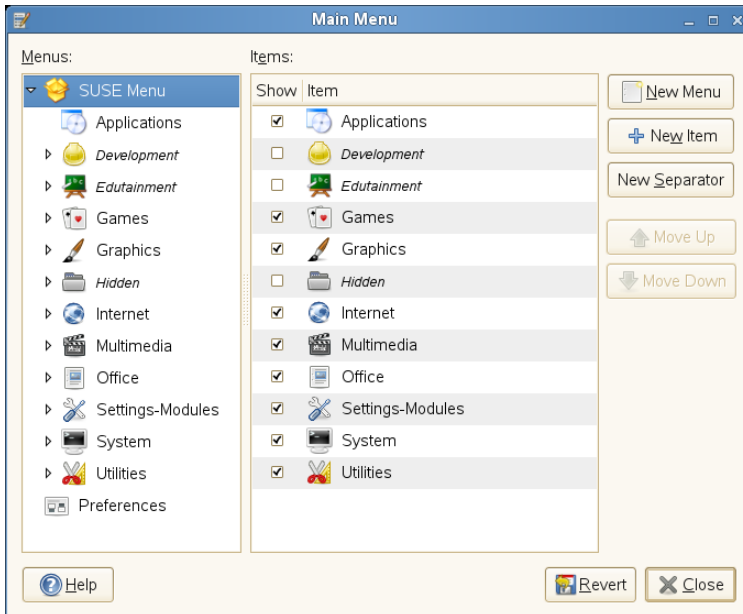
For example, to locate the Sound Recorder application:

1 Click *Computer > Control Center > Look and Feel > Main Menu*.

2 Click the arrow next to the *Multimedia* submenu in the *Menus* list, then select the *Recording* group.

3 Locate Sound Recorder in the *Items* list.

Rearranging Menu Items

You can change the order in which items appear in the Main menu. For example, you might want to place your frequently used applications at the top of the menu or at the top of their groups to make them easier to find.

To move an item, click it and drag it to a new location in the menu. You can move the item to a new location in the same menu, or drop it on an item in the *Menus* list to move it to a new menu or group. You can also use the *Move Up* and *Move Down* buttons to change an item's location in the menu.

Creating New Separators

Separators serve as visual cues to make it easier to find items in menus.

NOTE

Separators are not used in the current version of the GNOME menu. Adding a separator will have no effect. However, if you install and use an older version of the GNOME menu, you can use separators.

To create a separator:

1 Click *Computer > Control Center > Look and Feel > Main Menu*.

2 Select the item above the space where you want the separator to appear.

For help locating an item, see Section "Finding Menu Items" (page 114).

3 Click *New Separator*.

The new separator appears beneath the selected item in the *Items* list. You can drag the separator to a new location like you would any other menu item. To delete a separator, see Section "Deleting Items from the Main Menu" (page 116).

Showing or Hiding Menu Items

To show or hide an item:

1 Click *Computer > Control Center > Look and Feel > Main Menu*.

2 Locate the item in the *Items* list

3 Select the box next to the item to show the item.

or

Deselect the box next to the item to hide the item.

4 Click *Close*.

When you hide an item, it remains in the *Items* list and can be shown at another time if you decide you want it to appear in the menu. To delete an item from the *Items* list, see Section "Deleting Items from the Main Menu" (page 116).

Deleting Items from the Main Menu

There are two ways to remove an item from the Main menu:

- To remove an item but retain it in the *Items* list so you can easily add it to the menu, hide the item as explained in Section "Showing or Hiding Menu Items" (page 115).

- To delete an item from the *Items* list so it can no longer be shown, right-click the item and click *Delete*.

NOTE

Separators can not be hidden. They can only be added or deleted.

If you want to show a deleted item, you must add it like you would a new application. See Section "Adding New Items to the Main Menu" (page 117) for information about adding an application.

Renaming Menu Items

1 Click *Computer > Control Center > Look and Feel > Main Menu*.

2 Locate the menu item whose name you want to change, as explained in Section "Finding Menu Items" (page 114).

3 Right-click the item, then click *Properties*.

4 Replace the current name with the name you want to give the item, then click *Close*.

The old name is replaced by the new one in the menu.

Changing an Item's Generic Name

A short descriptive name appears beneath the name of each item in the Main menu. This is known as the generic name. To change the generic name:

1 Click *Computer > Control Center > Look and Feel > Main Menu*.

2 Locate the menu item whose generic name you want to change, as explained in .

3 Right-click the item, then click *Properties*.

4 Replace the current generic name with the generic name you want to give the item, then click *Close*.

The old generic name is replaced by the new one in the menu.

Adding New Items to the Main Menu

You can add a new item to the Main menu. This is especially helpful when you install an application, but it is also useful if you have other applications that do not currently appear on the menu. You can also add a directory, a link, or another type of item to the menu.

To add an application to the Main menu:

1 Click *Computer > Control Center > Look and Feel > Main Menu*.

2 In the *Menus* list, click the arrow next to the menu containing the group where you want to add the application, then select the group.

The contents of that group appear in the *Items* list.

3 Click *New Item*.

4 Type a name and generic name for the item.

5 Click *Browse* and browse to the item.

6 Select the item.

7 Click the *Type* list, then select the type of item.

For example, if you are adding a directory, click the list and select *Directory*. If you are adding an application, leave the default item type, *Application*, as is.

8 (Optional) To assign an icon to the new item, click *No Icon*, then select an icon for the item.

If you do not select an icon, the item appears in the menu without an icon.

9 Click *Close*.

After the item is added to the menu, you can move it to the place where you want it to appear in the menu, as described in Section "Rearranging Menu Items" (page 115).

2.2.6 Improving Access for the Visually Impaired

The Orca screen reader assists visually impaired users so they can read the information on the screen, either by magnifying the screen, reading screen output aloud, or outputting information from the screen in Braille to a screen reader. To configure Orca, click *Computer > Control Center > Look and Feel > Orca Screen Reader*.

The first time you run this module, a terminal opens so you can set up the Orca screen reader. This setup consists of a series of yes/no questions. Answer the questions as appropriate for your setup. After the setup is complete, you must log out and log back in for your setup to take effect.

After the initial setup, to change the preferences you set during setup or to set additional options, click *Computer > Control Center > Look and Feel > Orca Screen Reader*.

2.2.7 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 2.31   *Screensaver Preferences Dialog*
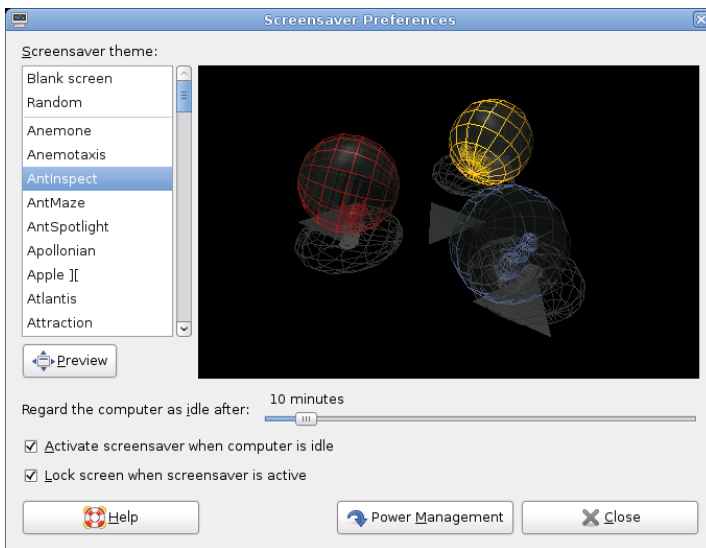
You can select from *Random* (random selection of screen savers from a custom-defined list), *Blank Screen*, or a selection of installed screen savers.

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.

2.2.8 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 titlebar, 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 2.32 *Window Preferences Dialog*
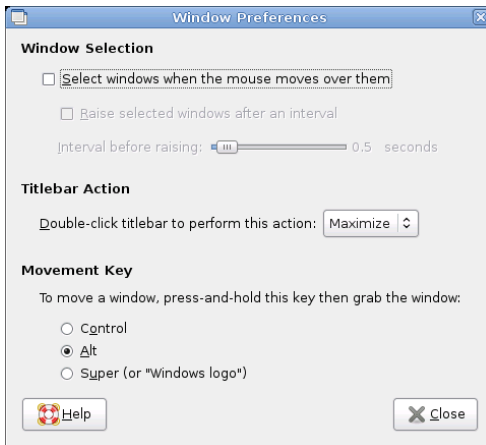
When several application windows populate the desktop, the active one by default is the one last clicked. Change this behavior by activating *Select Windows When the Mouse Moves over Them*. If desired, activate *Raise Selected Window after an Interval* and adjust the latency time with the slider. This 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 logo key).

2.3 Personal

Personal settings include the following:

2.3.1 Configuring Keyboard Accessibility Settings

GNOME provides keyboard settings designed to help users with motion impairments use 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, Control, and Shift can be duplicated with "sticky keys"

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

The module consists of the three tabs: *Basic*, *Filters*, and *Mouse Keys*. Before modifying settings, activate *Enable Keyboard Accessibility Features*.

Figure 2.33   *Keyboard Accessibility Preferences Dialog*
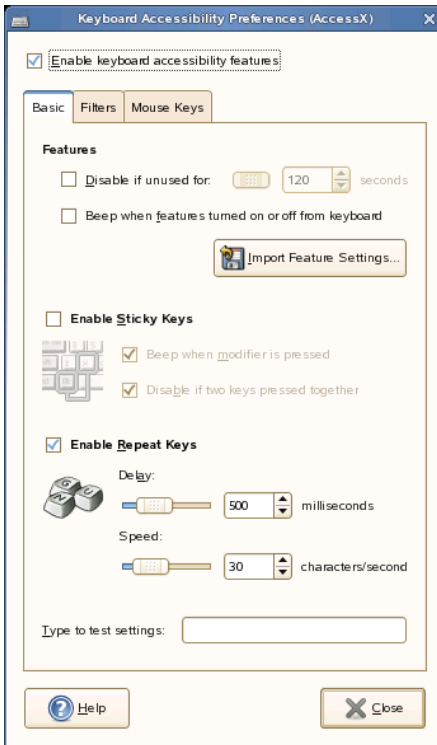
Features (Basic Tab)

The keyboard accessibility functions can be deactivated automatically after a certain time. 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.

Enable Sticky Keys (Basic Tab)

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. 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.

Enable Repeat Keys (Basic Tab)

Activate *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.

Enable Slow Keys (Filters Tab)

To prevent accidental typing, 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.

Enable Bounce Keys (Filters Tab)

To prevent double typing, 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 (Filters Tab)

You can request audible feedback from the system when a keycap modifier key is pressed.

Mouse Keys Tab

Activates the keyboard mouse; 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.

2.3.2 Configuring Assistive Technology Support

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

Figure 2.34   *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 screenreading 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 Click *Computer > More Applications > System > YaST*.

2 Type the root password, then click *OK*.

3 Click *Software > Software Management*.

4 Select *Selection* from the *Filter* drop-down menu, then select *Accessibility* from the *Selection* list.

5 Select gok, gnopernicus, and gnome-mag from the *Available Software* list

6 Click *Accept*.

7 Insert the CD you are prompted for, then click *OK*.

8 Click *Cancel* > *Close* after the package installation is complete.

2.3.3 Changing Your Password

For security reasons, it is a good idea to change your 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*.

2.3.4 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 2.35 *Keyboard Shortcuts Dialog*
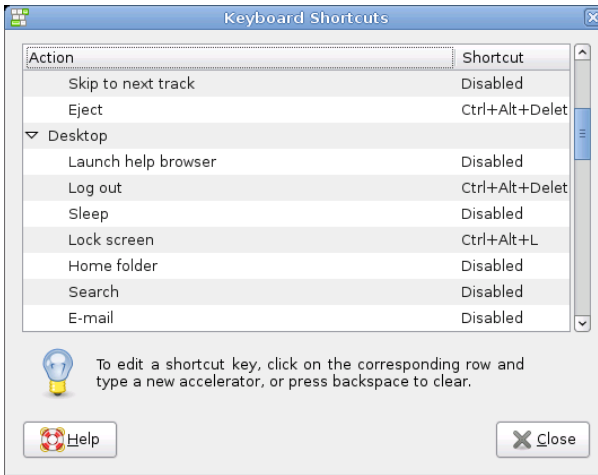
To change the shortcut keys for an action, select the action and then press the keys you want to associate with the action. To disable the shortcut keys for an action, click the shortcut for the action, then press Backspace.

2.4 System

System settings include the following:

2.4.1 Configuring Date and Time

To change your date and time configuration, for example to change your time zone or the way the date and time are displayed, click *Computer > Control Center > System > Date and Time*. This opens the YaST Date and Time module, which requires root privileges. Enter the root password and follow the instructions on the YaST pages.

2.4.2 Configuring Streaming Audio and Video

The GStreamer Properties application lets you set 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.

2.4.3 Configuring Language Settings

openSUSE 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

NOTE

You must have administrator (root) privileges to configure language settings.

To configure your language settings:

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

2 (Conditional) If you are not logged in as root or a user with administrator privileges, 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.

2.4.4 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 2.36 *Network Proxy Configuration Dialog*
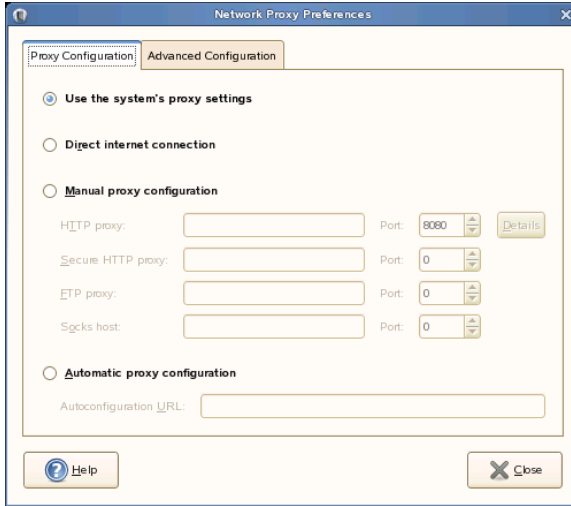
The following table lists the Internet connection options that you can modify.

Table 2.14 *Internet Connection Options*

Option	Description
Direct Internet connection	Connects directly to the Internet, without a proxy server.
Manual proxy configuration	Connects to the Internet through a proxy server and lets you configure the proxy server manually.
HTTP proxy	The DNS name or IP address of the proxy server to use when you request a HTTP service. Specify the port number of the HTTP service on the proxy server in the Port box.

Option	Description
Secure HTTP proxy	The DNS name or IP address of the proxy server to use when you request a Secure HTTP service. Specify the port number of the Secure HTTP service on the proxy server in the Port box.
FTP proxy	The DNS name or IP address of the proxy server to use when you request an FTP service. Specify the port number of the FTP service on the proxy server in the Port box.
Socks host	The DNS name or IP address of the Socks host to use. Specify the port number for the Socks protocol on the proxy server in the Port spin box.
Automatic proxy configuration	Connects to the Internet through a proxy server and lets you configure the proxy server automatically.
Autoconfiguration URL	The URL that contains the information required to configure the proxy server automatically.

2.4.5 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.

Click *Computer > Control Center > System > Power Management*.

Specifying Sleep Mode Times

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.

To specify your computer's sleep settings:

1 Click *Computer > Control Center > System > Power Management*.

2 Click the tab for the type of power you are using.

   If your computer uses AC power, click *On AC Power*.

   If your computer runs on battery power, click *On Battery Power*.

   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.

3 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.

4 Click *Close*.

   The options you selected go into effect immediately.

Setting General Power Options

To set general power options, click *Computer > Control Center > System > Power Management*, then click the *General* tab. On this tab, you can choose:

• The sleep type to use when the computer is inactive

• How and when the *Power* icon displays

2.4.6 Setting Preferred Applications

The Preferred Applications module allows you to specify which applications to use for various common tasks:

To change any of these settings:

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 applications from the *Choose* menu or enter the command used to start the application.

4 Click *Close*.

The changes take effect immediately.

2.4.7 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. These preferences can have a direct impact on the security of your system.

1 Click *Computer > Control Center > System > Remote Desktop*.

2 Choose from the following options:

Option	Description
Allow other users to view your desktop	Lets remote users view your session. All keyboard, pointer, and clipboard events from the remote user are ignored.
Allow other users to control your desktop	Lets other users access and control your session from a remote location.
Users can view your desktop using this command	Click the highlighted text to system address by e-mail to a remote user.
When a user tries to view or control your desktop	Select the following security considerations when a remote user tries to view or control your session: **Ask you for confirmation:** Select this option if you want remote users to ask you for confirmation when they want to share your session. This option lets you be aware of other users who connect to your session. You can also decide what time is suitable for the remote user to connect to your session.

Option	Description
	Require the user to enter this password: Select this option to authenticate the remote user if authentication is used. This option provides an extra level of security.
Password	Type the password that the remote user must enter to view or control your session.

3 Click *Close*.

2.4.8 Configuring Beagle Search 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 Settings*.

For more information, see Section 10.4, "Setting Search Preferences" (page 254) and Section 10.6, "Preventing Files and Directories from Being Indexed" (page 256).

2.4.9 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*.

This module consists of three tabbed pages:

- **Startup Programs:**   Lets you specify non-session-managed startup applications, which start automatically when you start a session.

- **Current Session:**   Lets you specify startup order values and select restart styles for the session-managed applications in your current session.

- **Session Options:**   Lets you remember running applications when logging out so they open the next time you log in.

Configuring Startup Applications

Use the Startup Programs tabbed page to specify non-session-managed startup applications.

Figure 2.37   *Sessions Dialog—Startup Programs Page*
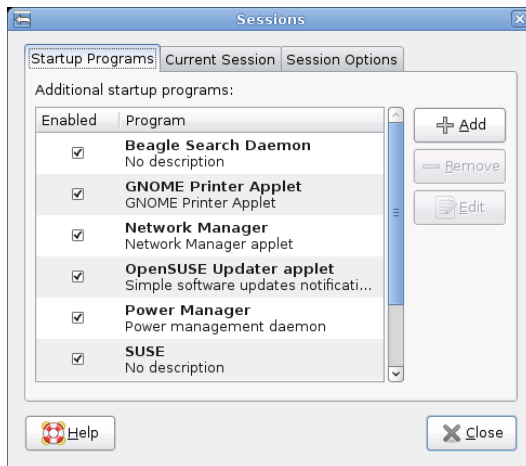
Startup applications are applications that start automatically when you begin a session. You specify the commands that run these applications and the commands execute automatically when you log in.

You can also start session-managed applications automatically. For more information, see Section "Remembering Running Applications when Logging Out" (page 138).

To add a startup application, click *Add*. The Add Startup Program dialog is displayed. Specify the command to start the application in the *Startup Command* field. If you specify more than one startup application, use the *Order* box to specify the startup order of the each application.

To edit a startup application, select the startup application and then click *Edit*. The Edit Startup Program dialog is displayed. Modify the command and the startup order for the startup application.

To delete a startup application, select the startup application and then click *Remove*.

Deselect the checkbox in the *Enabled* column to disable the application but leave it in the list. Disabled applications do not start at startup but can easily be enabled to do so.

Setting Session Properties

Use the Current Session tabbed page to specify startup order values and to choose restart styles for the session-managed applications in your current session.

Figure 2.38 *Sessions Dialog—Current Session Page*
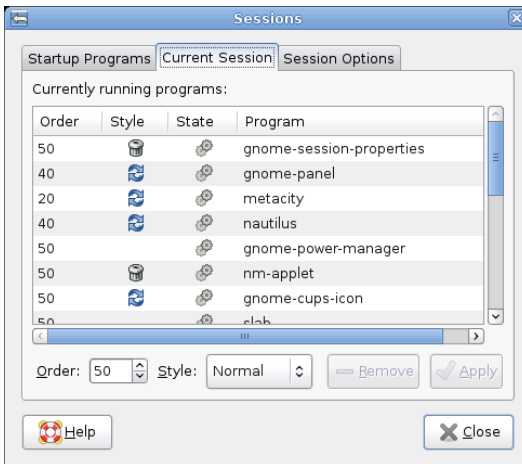
The following table lists the session properties that you can configure.

Table 2.15   *Session Properties for Session-Managed Applications*

Option	Description
Order	Specifies the order in which the session manager starts session-managed startup applications. The session manager starts applications with lower order values first. The default value is 50. To set the startup order of an application, select the application in the table. Use the *Order* box to specify the startup order value.
Style	Determines the restart style of an application. To select a restart style for an application, select the application in the table and then select one of the following styles: • **Normal:** Starts automatically when you start a session. Use the `kill` command to terminate applications with this restart style during a session. • **Restart:** Restarts automatically when you close or terminate the application. Select this style for an application if it must run continuously during your session. To terminate an application with this restart style, select the application in the table and then click *Remove*. • **Trash:** Does not start when you start a session. • **Settings:** Starts automatically when you start a session. Applications with this style usually have a low startup order and store your configuration settings for GNOME and session-managed applications.
Remove	Deletes the selected application from the list. The application is removed from the session manager and closed. Applications that you delete are not started the next time you start a session.
Apply	Applies changes made to the startup order and the restart style.

Remembering Running Applications when Logging Out

Use the Session Options tab to automatically save the current state of your session. The session manager saves the session-managed applications that are open and the settings associated with the session-managed applications. The next time you start a session, the applications start automatically with the saved settings.

2.4.10 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.

Setting Sound Devices

Use the *Devices* tab to configure the application to use for various types of sounds.

Figure 2.39 *Sound Preferences Dialog—Devices Page*

Click the drop-down list for each type of sound and select the application to use. In most cases, *Autodetect* is the best choice, unless you want to use a specific application.

Setting General Sound Preferences

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

Figure 2.40　*Sound Preferences Dialog—General Page*
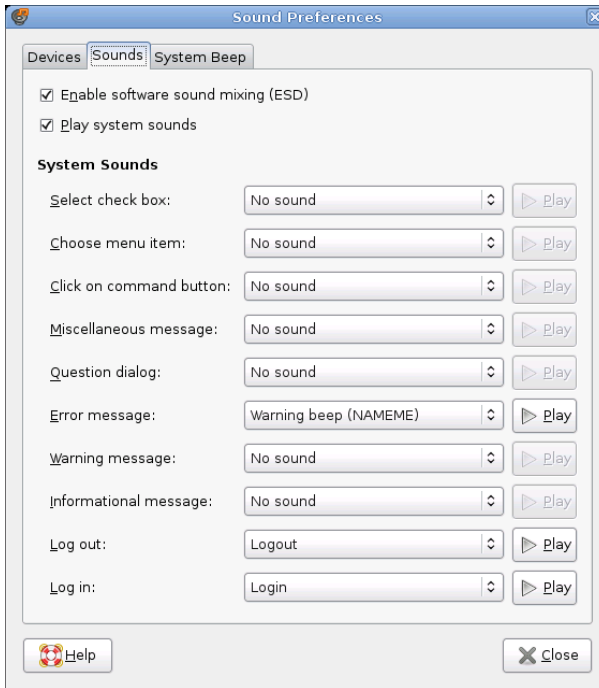
Click *Enable software sound mixing (ESD)* to start the sound server when you start a session. When the sound server is active, the desktop can play sounds.

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.

Setting System Beep Preferences

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

Figure 2.41 *Sound Preferences Dialog—System Beep Page*
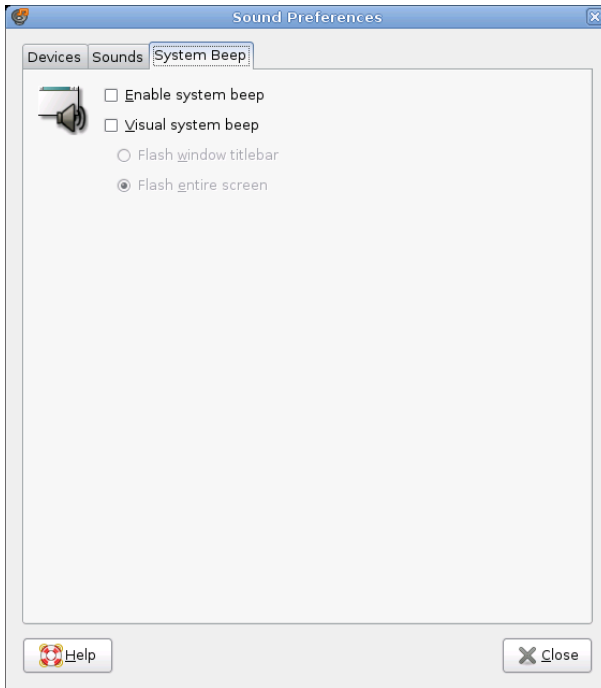
2.4.11 Managing Users and Groups

Use the *User Management* tool to manage users and groups, including user and group names, group membership, password and password encryption, and other options.

Click *Computer > Control Center > System > User Management*. The *User Management* tool opens the User and Group Administration module in YaST.

NOTE

Root privileges are required to manage users and groups.

Follow the directions in YaST for information on changing settings.

2.4.12 Configuring Administrative Settings with YaST

Use the YaST Control Center to change the installation and configuration of your whole system. Administrator (or `root`) permission is required to open YaST.

To open YaST, click *Computer > More Applications > System > YaST*, then enter the `root` password. If you do not know the `root` password, ask your system administrator.

YaST contains various modules you can use to adjust your system settings. These modules are divided into the following categories:

Hardware: Contains modules for configuring hardware components such as your monitor, keyboard, mouse, printer, and scanner.

Miscellaneous: The YaST Control Center has several modules that cannot easily be classified into the first six module groups. The modules in this category can be used for things such as viewing log files and installing drivers from a vendor CD.

Network Devices: Includes modules for configuring network devices such as network cards, ISDN, DSL, or modem.

Network Services: Contains modules for network services and for configuring clients such as LDAP and NFS.

Novell AppArmor: Use the modules of this category to configure the Novell® AppArmor™ access control system. This option is available only if the *Novell AppArmor* pattern is installed.

Security and Users: Use these modules to configure security details such as firewall options, and to create and manage users and groups.

Software: Use the modules of this category to set options for installation and updates, and to install or remove software packages.

System: Use these modules to change system settings such as the date, time, or language, and to perform tasks such as backing up or restoring files.

For information about using YaST, see the Installation and Setup part in *Start-Up*, available at http://www.novell.com/documentation/opensuse103/.

Part II. Office and Collaboration

The OpenOffice.org Office Suite

3

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.

OpenOffice.org consists of several application modules (subprograms), which are designed to interact with each other. They are listed in Table 3.1, "The OpenOffice.org Application Modules" (page 148). 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 180).

Table 3.1   *The OpenOffice.org Application Modules*

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

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.

3.1 Understanding OpenOffice.org

This section contains information that applies to all of the application modules in OpenOffice.org. Module-specific information can be found in the sections relating to each module.

3.1.1 Advantages of the Novell Edition of OpenOffice.org

openSUSE® 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, AD-DRESS/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

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, which provides better support of bullets, displaying attractive bullets rather than "missing glyph" square boxes that sometimes appear

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 true 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 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 [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 > Wizards > 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 retrieved 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. 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.

Some OpenOffice.org modules can be found in other sections of the More Applications window. For example, the Writer/Web module is listed under *Internet* and the Draw module is under *Graphics*.

- 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 the macro to the Start Application event.

This section contains simple, generic instructions for customizing your environment. The changes you make are effective immediately, so you can see if the changes are what you wanted and go back and modify them if they weren't. 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, then click *Customize Toolbar.*

or

Click *Tools* > *Customize* > *Toolbars*.

2 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.

3 Select the check boxes next to the commands you want to appear on the toolbar, and deselect the check boxes next to the commands you don't want to appear.

4 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.

5 Repeat to customize additional toolbars.

6 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 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 > Menus*.

2 Select the menu you want to change, or click *New* to create a new menu.

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

3 Modify, add, or delete menu items as desired.

4 Click *OK*.

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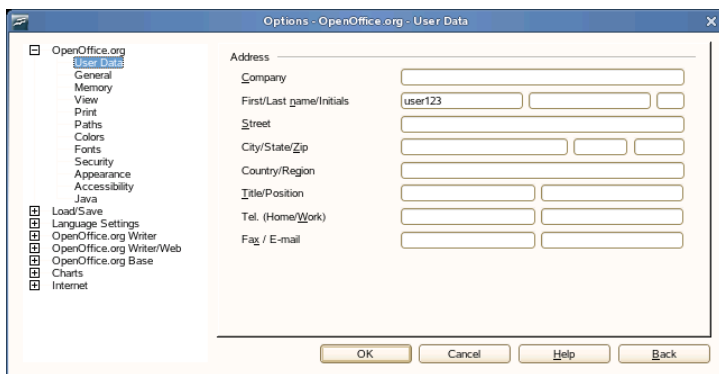
The following table lists the settings categories along with a brief description of each category:

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
OpenOffice.org	Various basic settings, including your user data (such as your address and e-mail), important paths, and settings for printers and external programs.	All
Load/Save	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
Language Settings	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

Settings Category	Description	Application
OpenOffice.org Math	Provides a single dialog to set special print options for formulas.	Math
OpenOffice.org Base	Provides dialogs to set and edit connections and registered databases.	Base
*Chart*s	Defines the default colors used for newly created charts.	All
Internet	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. (Because Web sites often close or their content changes, the information in the following table might not be current when you read it.)

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

Location	What You Can Find
OpenOffice.org documentation Web site [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 [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 165) and Section 3.3.2, "Using Templates in Calc" (page 171).

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 180).

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.

- Section 3.2.1, "Creating a New Document" (page 161)

- Section 3.2.2, "Sharing Documents with Other Word Processors" (page 162)

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 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, "An OpenOffice.org Wizard" (page 161).

Figure 3.2   *An OpenOffice.org Wizard*
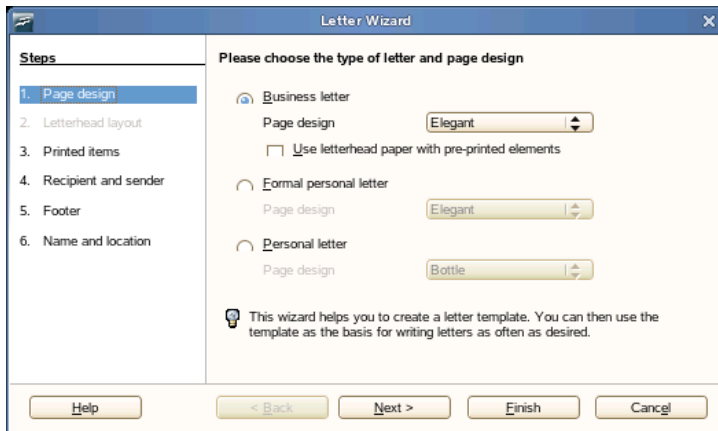
Enter text in the document window as desired. Use the *Formatting* toolbar or the *Format* menu to adjust the appearance of the document. Use the *File* menu or the relevant buttons

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.

So, 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

Type of Style	What it Does
	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 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 is 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 paragraph 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. However, if you apply paragraph styles, formatting remains consistent. If you change a style, the change is automatically applied to all paragraphs formatted with that style.

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 how you want the document to look 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 152) 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 [`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*
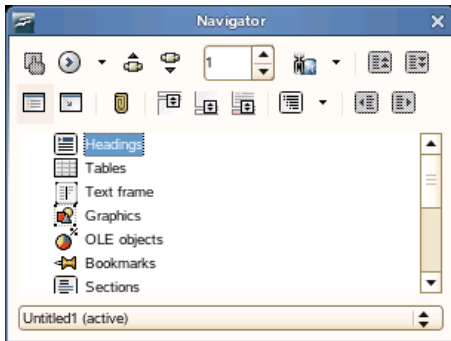
Click an item in the Navigator to jump to that item in the document.

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 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.

- Section 3.3.1, "Using Formatting and Styles in Calc" (page 170)

- Section 3.3.2, "Using Templates in Calc" (page 171)

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, use 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 [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.

- Section 3.4.1, "Creating a Presentation" (page 172)
- Section 3.4.2, "Using Master Pages" (page 173)

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 165) for more information about templates.

You can also choose to open an existing presentation.

3 Select a slide design and an output medium, then click *Next*.

The slide design provides a variety of backgrounds and ready-made presentations, or you can select Original to create your own.

The output medium is the form the final presentation will take, such an overhead sheet, paper, or a screen slide show, among other choices.

Select *Preview* for a thumbnail showing your choices.

4 Select the type and speed of slide transitions and the presentation type (the timing of the presentation), then click *Create*.

There are several slide transition choices, available from the drop-down.

You can choose either the default presentation type or *Automatic*. If you select *Automatic*, specify the amount of time each page displays and the length of the pause between presentations.

The presentation opens, ready for editing.

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, in the Slides Pane, Control-click on the slides you want to use that slide master.

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 180).

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:

- Section "Creating the Database" (page 176)

- Section "Setting Up the Database Table" (page 176)

- Section "Creating a Form" (page 178)

- Section "Modifying the Form" (page 178)

- Section "What's Next?" (page 178)

Creating the Database

First, create the database.

1 Click *File > New > Database*.

2 Select *Create a new database*, then click *Next*.

3 Click *Yes, register the database for me* to make your database information available to other 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 right-arrow 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 up-arrow and down-arrow 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 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 180) 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 180) 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 2.3 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.)

Table 3.5   *Where to Get Information About OpenOffice.org*

Location	What You Can Find
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

Location	What You Can Find
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

4

Evolution™ makes the tasks of storing, organizing, and retrieving your personal information easy, so you can work and communicate more effectively with others. It's a highly evolved groupware program, an integral 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 that on one or several computers, connected directly or over a network, for one person or for large groups.

With Evolution, you can accomplish your most common daily tasks 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 it stores all of its local data. 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 two to five minutes.

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*.

The Setup Assistant helps you provide the information Evolution needs to get started.

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 in the *Full Name* field.

2 Type your e-mail address in the *E-Mail Address* field.

3 (Optional) Select if this account is your default account.

4 (Optional) Type a reply to address in the *Reply-To* field.

Use this field if you want replies to e-mails sent to a different address.

5 (Optional) Type your organization name in the *Organization* field.

This is the company where you work, or the organization you represent when you send e-mail.

6 Click *Forward*.

Receiving Mail

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

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 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. 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.

IMAP4rev1: 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 additional information.

1 Type the hostname of your e-mail server in the *Hostname* field.

If you don't know the hostname, contact your administrator.

2 Type your username for the account in the *Username* field.

3 Select to use a secure (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 Select if you want Evolution to remember your password.

6 Click *Forward*.

7 (Conditional) If you chose Microsoft Exchange, 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, OWA path should include mail box path also. You should see something similar to this: http://<server name>/exchange/<mail box path>

When you have finished, continue with Section "Receiving Mail Options" (page 188).

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 188).

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 if you want Evolution to automatically check for new mail.

If you select this option, you need to specify how often Evolution should check for new messages.

2 Select if you want to check for new messages in all folders.

3 Select if you want to apply filters to new messages in the Inbox on the server.

4 Select if you want to check new messages for junk content.

5 Select if you want to only check for junk messages in the Inbox folder.

6 Select if 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 193).

Microsoft Exchange Receiving Options

If you select Microsoft Exchange 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 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 if 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 Select if 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 if you want to automatically synchronize remote mail locally.

6 Click *Forward*.

When you have finished, continue with .

IMAP and IMAP4rev1 Receiving Options

If you select IMAP or IMAP4rev1 as your receiving server type, you need to specify the following options:

1 Select if you want Evolution to automatically check for new mail.

   If you select this option, you need to specify how often Evolution should check for new messages.

2 Select if you want 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 if you want Evolution to show only subscribed folders.

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

4 Select if you want Evolution to override server-supplied folder namespaces.

   By choosing this option you can rename the folders that the server provides. If you select this option, you need to specify the namespace to use.

5 Select if you want to apply filters to new messages in the Inbox.

6 Select if you want to check new messages for junk content.

7 Select if you want to check for junk messages in the Inbox folder.

8 Select if you want to automatically synchronize remote mail locally.

9 Click *Forward*.

When you have finished, continue with .

POP Receiving Options

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

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

2 Select if you want to leave messages on the server.

3 Select if you want to disable support for all POP3 extensions (support for POP3).

4 Click *Forward*.

When you have finished, continue with Section "Sending Mail" (page 193).

USENET News Receiving Options

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

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

2 Select if you want to show folders in short notation.

For example, comp.os.linux would appear as c.o.linux.

3 Select if you want to show relative folder names in the subscription dialog box.

If you select to show relative folder names in the subscription page, only the name of the folder is displayed. For example the folder evolution.mail would appear as evolution.

4 Click *Forward*.

When you have finished, continue with Section "Sending Mail" (page 193).

Local Delivery Receiving Options

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

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

2 Click *Forward.*

When you have finished, continue with .

MH-Format Mail Directories Receiving Options

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

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

2 Select if you want to user the `.folders` summary file.

3 Click *Forward.*

When you have finished, continue with .

Maildir-Format Mail Directories Receiving Options

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

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

2 Select if you want to apply filters to new messages in the Inbox.

3 Click *Forward.*

When you have finished, continue with .

Standard Unix Mbox Spool or Directory Receiving Options

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

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

2 Select if you want to apply filters to new messages in the Inbox.

3 Select if you want to store status headers in Elm, Pine, and Mutt formats.

4 Click *Forward*.

When you have finished, continue with .

Sending Mail

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

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

  The following server types are available:

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

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

SMTP Configuration

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

If you are unsure what your host address is, contact your system administrator.

2 Select if your server requires authentication.

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

2a 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.

2b Type your username in the *Username* field.

2c Select if you want Evolution to remember your password.

3 Select if you use a secure connection (SSL).

4 Click *Forward*.

Continue with

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

Time Zone

In this step, you need to select your time zone either on the map or select 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 195). If not, skip to Section 4.2, "Using Evolution: An Overview" (page 195).

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 don't, 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.

Contacts 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're ready to begin using Evolution. Here's a quick explanation of what's happening in your main Evolution window.

Figure 4.1   Evolution Window
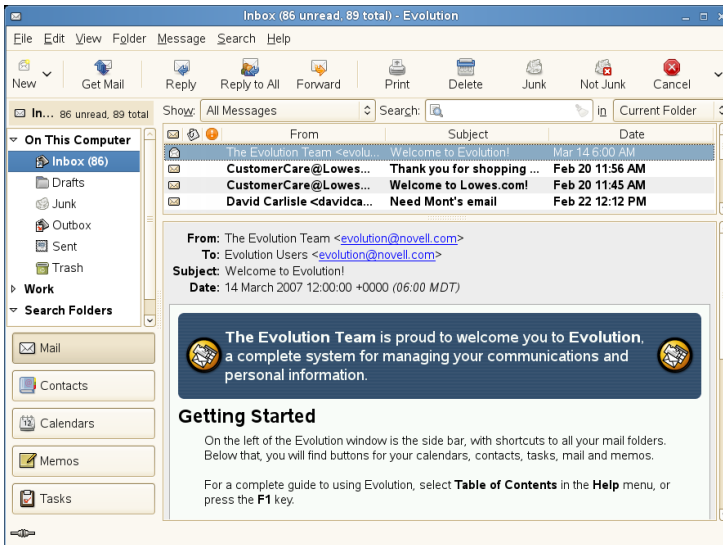
Menu Bar

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

Folder List

The folder list gives you a list of the available folders for each account. To see the contents of a folder, click the folder name 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're 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're 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 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: Checks the number of total and unread messages in a folder, and, for remote folders, lets you select whether to copy the folder to your local system for offline operation.

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

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

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's built to handle very large amounts of e-mail. The junk e-mail, message filtering and searching functions were built for speed and efficiency. There'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.

Message List

The message list displays all the e-mails that you have. This includes all your read and unread messages, and e-mail that is flagged to be deleted.

Preview Pane

This is where your e-mail is displayed.

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

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

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 on a ruled background. At the upper right, there's a monthly calendar you can use to switch days. Below that, there's a Task list, where you can keep a list of tasks separate from your calendar appointments.

Appointment List

The appointment list displays all your scheduled appointments.

Month Pane

The month pane is a small view of a calendar month. To display additional months, drag the column border to the left. You can also select a range of days in the month pane to display a custom range of days in the appointment list.

Task List

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

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's 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 direc-
tories 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.

Synchronizing Your Handheld Devices with GNOME Pilot

5

GNOME Pilot lets you integrate your GNOME desktop with handheld computers. You can use it to set up and perform synchronization between PDAs and your GNOME desktop.

The `gnome-pilot` package, along with the optional conduits in `evolution-pilot`, allows you to move information between your handheld device and your GNOME desktop. You must run the setup tool before synchronizing. The setup tool starts the GNOME Pilot daemon, `gpilotd`. If it is not running, you can start the daemon with the `/usr/libexec/gpilotd` command. You can also use the GNOME Pilot applet to start the daemon.

To start the GNOME Pilot applet, click *Computer > More Applications > System > GNOME Pilot*.

5.1 GNOME Pilot Configuration Tool

To start the GNOME Pilot configuration tool, click *Computer > More Applications > System > GNOME Pilot*.

There are three tabs in the Pilot Settings tool: *Pilots*, *Devices*, and *Conduits*. The first time you run the GNOME Pilot tools, you will be guided through the initial setup by an assistant.

5.1.1 The GNOME Pilot Setup Assistant

The setup assistant guides you through getting your handheld device ready to synchronize with your desktop system.

1 Click *Computer > More Applications > System > GNOME Pilot*, then click *Forward* to start the GNOME Pilot Setup Assistant


2 In the Device Settings dialog box, describe your handheld's cradle, then click *Forward*.

See Section 5.1.3, "Adding or Editing an Entry On the Device Settings Tab" (page 207) for more information about the information requested by this step.
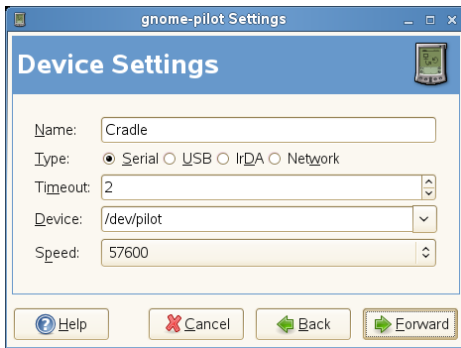
3 In the PDA Identification dialog box, identify your device, then click *Forward*.

If you have previously used synchronization software with this PDA, it will already have a synchronization ID that your desktop can get from it. If you have not, you can set the username and ID on the PDA from your desktop.
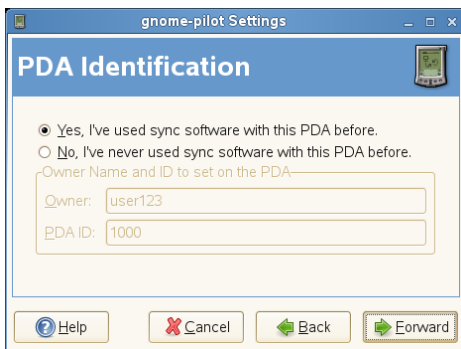
4 On the Initial Sync dialog box, click *Forward* to contact your PDA device and get or set the name and other information.
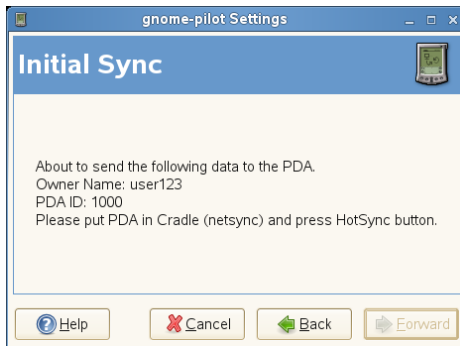
5 Choose a name to use when referring to the PDA, and a directory on your desktop system where you will store backups and other data.

5.1.2 Adding or Editing a Handheld Entry

The Pilots tab lists the handheld devices you have configured. If you have not used the Pilot Settings tool before, you will not have any items in this list, and the tool will open a new window to walk you through the process of creating one. To add a new pilot, click *Add*. To edit an existing pilot entry, select it and click *Edit*.

When editing or creating an entry, you will be asked for five pieces of information:

- **User Name:**   This is the name used on your Pilot. If your pilot already has a name configured, you can get it from the pilot by clicking the *Get from Pilot* button. You can also set it on the pilot by clicking the *Set On Pilot* button.

- **ID:**   This is the user ID number from your pilot. You can get this value from the handheld by clicking the *Get from Pilot* button. You can also set it on the handheld by clicking the *Set On Pilot* button.

- **Pilot Name:**   This is the name by which your handheld will be identified. For example, you could call it MyPilot, or Palm5, or Roger.

- **Local Basedir:**   This is the directory where you will store information backed up from your handheld.

- **Sync Action:**   This is the action that will be performed when you press the Hot-Sync button on your cradle. If you set this option to *Use conduit settings*, then you can choose different actions depending on the type of data being handled. If you set it to anything else, all data will be handled the same way. For descriptions of the synchronization actions, see Section 5.1.4, "Conduit Settings" (page 208).

5.1.3 Adding or Editing an Entry On the Device Settings Tab

The Device Settings tab controls the way your desktop system looks at your handheld as hardware. To add an entry to the list, click *Add*. To edit a device, select it, then click *Edit*.

For each entry, you can specify the following options:

- **Name:**   This is the name used to display the device in a list.

- **Type:**   Select the type of connection you have: Serial, USB, IrDA (infrared), or Network.

- **Timeout:**   Specifies the amount of time to try to connect to the system, in seconds. If there is no communication between the desktop and the handheld for this many seconds, the system will stop trying.

- **Device:**   Your handheld is represented to the computer as a special file in the `/dev` directory. The name of the file will vary from system to system. In many cases, however, it will be `/dev/pilot`. Other possible values are `/dev/ttyS0` or `/dev/ttyS1` for serial cradles (under Windows, these are referred to as COM ports), or `/dev/usb/`, for USB cradles.

  You will need to make sure that your user account has read, write, and execute permissions on this device. To add those permissions, become root with the `su` command and enter the command `chmod a+wrx /dev/ttyS0`. Substitute the name of the device you are setting.

  If you have not chosen the correct device, you will get an error message when you click *OK*.

- **Speed:** Select a number from the drop-down menu. The higher the number, the faster you are asking the system to transfer information. Normally, you should not change this option, because it is set by default for the fastest value that your connection type can provide. If you experience problems at high speeds, reducing the transfer speed might help.

5.1.4 Conduit Settings

A Conduit is a specialized program that channels data between your computer and your handheld. The gnome-pilot package includes several, and you can also install additional conduits such as those for Evolution.

Each configured handheld might have its own set of conduits and conduit settings.

If a conduit is disabled, that type of data will be ignored when you HotSync. If a conduit is enabled, its data will be synchronized according to its settings. To enable or disable a conduit, select it and click the *Enable* or *Disable* button on the right side of the list of conduits.

To edit the settings, select a conduit and click the *Settings* button. Each conduit will have at least two settings: an *Action* to perform whenever you synchronize, and a *One Time Action*, performed only the next time you synchronize.

Not all conduits will have all of these actions. The list of possible actions includes the following:

- **Disabled:** Do nothing.

- **Synchronize:** Ensures that data is the same in both places, copying new data from the pilot to the desktop, and from the desktop to the computer.

- **Copy to pilot:** Copies all data from the desktop to the pilot. New data added on the pilot will not be copied to the desktop.

- **Copy from pilot:** Copy all data from the pilot to the desktop. New data added on the desktop will not be copied to the pilot.

Other settings might be available as well, including *Conduit Priority*, which determines the order in which conduits will be used, and *Sync Private Records*, which determines whether to copy private information as well as public, or just the public data.

5.2 The Pilot Applet

The GNOME Pilot panel applet sits in your panel until you are ready to synchronize your handheld device. If the pilot access daemon is running, the applet will appear in black and white. If it is not running, the applet will appear red and black. If the daemon is paused, the applet will be yellow and black.

Click the applet button to start the GNOME Pilot configuration tool.

The following actions for the applet are available in the right-click menu:

- **Restore:**   If your PalmOS device has lost all data, select this item to restore it from a backup you made earlier.

- **Pause Daemon:**   Pauses the GNOME Pilot daemon gpilotd. If the daemon is paused, this item will read *Continue*.

- **Restart:**   Stops and restarts the daemon.

- **Last Log:**   Displays the results of the last synchronization performed.

- **Preferences:**   Click this item to select what happens when you click the applet, and whether to display notices in dialog boxes.

Instant Messaging with Pidgin

6

Use Pidgin (formerly called Gaim) to use all of your instant messaging accounts from a single instant messaging client. Pidgin 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.

With Pidgin, you can log in to multiple accounts on multiple IM networks simultaneously. Pidgin also supports many features of the various networks, such as file transfer, away messages, and typing notification.

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

6.1 Supported Protocols

Pidgin supports the following instant messaging protocols:

- AOL* Instant Messenger (AIM)

- Bonjour

- Gadu-Gadu

- Google Talk

- GroupWise Messenger

- ICQ

- IRC

- Jabber/XMPP

- MSN Messenger

- QC

- SILC

- SIMPLE

- Yahoo!*

- Zephyr*

6.2 Adding an Account

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

1 Start Pidgin by clicking *Computer > More Applications > Internet > Pidgin*.

2 Click *Accounts > Add/Edit* to open the *Accounts* dialog box.

The first time you run Pidgin, or any subsequent time you start Pidgin when you don't have any accounts set up, the *Accounts* dialog box opens automatically.

3 Click *Add* to open the *Add Account* dialog.

4 Select 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.
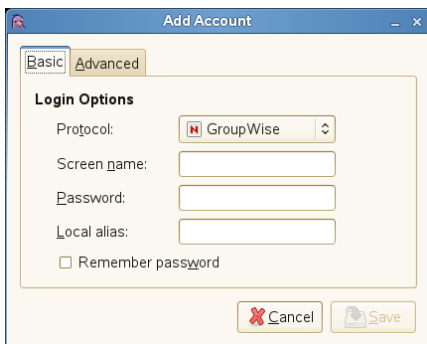
5 Enter the setup options for the chosen protocol.

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

6 Click *Save*.

7 Repeat Steps 2 to 5 for each additional protocol.

After an account is added, you can log in to that account by entering your password in the Pidgin login dialog box.

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

After 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.

Figure 6.1   *Pidgin Buddy List*
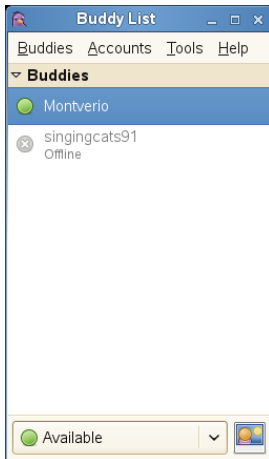
6.3.2 Adding a Buddy

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 Pidgin interface. You must
use the client for those protocols if you want to add to your buddy list. After
you have added a buddy in the protocol's client, that buddy appears in your
Buddy List.

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.

Figure 6.2   *Pidgin Chat Session*
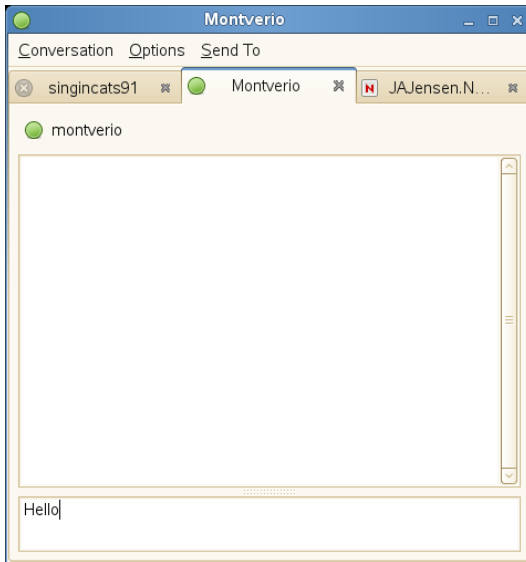
Using Voice over IP with Ekiga

7

Modern telecommunication means far more than just doing 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 you start, make sure 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 you have created a SIP account. 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 you have attached a Web cam to your computer.

7.1 Configuring Ekiga

On first start, Ekiga comes up with a configuration assistant that requests you to enter all data needed to configure your instance of Ekiga. To configure Ekiga, proceed as follows:

1. Enter your user name (name and surname).

2. Enter your `ekiga.net` account data or choose not to sign up to ekiga.net.

   To add other accounts later on, configure them using *Edit > Accounts*.

3. Determine your connection type.

4. Determine the type of firewall to use to enable you to perform 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 openSUSE.

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 what 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 via the menu bar. Shortcuts to the most important functions are provided by means of a toolbar to the left and by special key combinations.

Figure 7.1   *Ekiga User Interface*
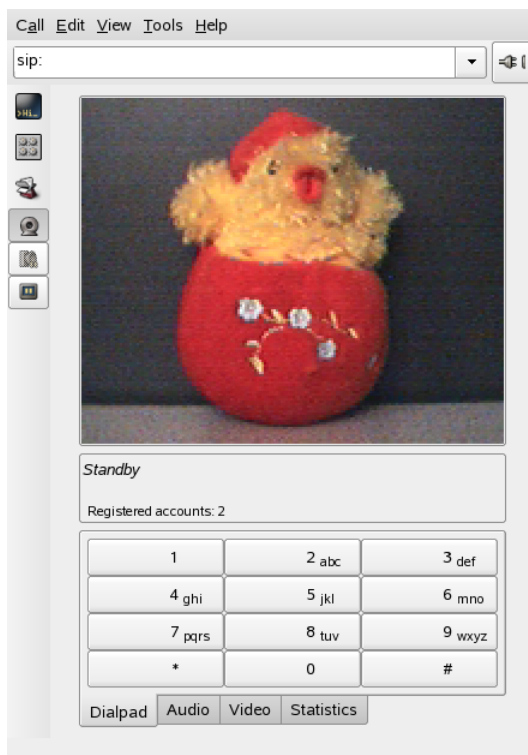
The user interface has different modes. To switch between views, use *View > View Mode* and *View > Control Panel* or select the *view mode* icon on the left side of the GUI and the different tabs at the bottom. The *Full View* is shown in Figure 7.1, "Ekiga

User Interface" (page 219). All icons in the toolbar provide a tool tip that is activated on hovering over the icon with your mouse pointer.

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 functions of Ekiga are available via keyboard shortcuts. Table 7.1, "Keyboard Shortcuts for Ekiga" (page 220) 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 Accounts manager.
Ctrl + P	Open the *Ekiga Preferences* overview. This dialog allows you to do some fine-tuning to your Ekiga settings.
Ctrl + +	Zoom in to the picture of the Web cam.
Ctrl + -	Zoom out or the picture of the Web cam.
Ctrl + =	Return to the normal size of the Web cam display.
Ctrl + F	Use full screen for the Web cam.

Ctrl Sequence	Description
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 other party at the *SIP address* prompt. The address should look like:

- for direct local calls: `sip:username@domainname` or `username@hostname`

- for proxied calls or calls using the service of a SIP provider: `username@sipserver` 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 Once you are done or wish 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 both volumes 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 land line to your VoIP account. Depend-

ing on the mode 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 pick up the phone and 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 need to be made 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 may access often used numbers more easily. However, this is optional as well.

Categories
> 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 with the mouse. The call will be directly initiated.

7.6 For More Information

The official home page of Ekiga is http://www.ekiga.org/. This site offers the frequently asked questions as well as a 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.

If you intend to set up your private telephone network, you might be interested in the PBX software Asterisk http://www.asterisk.org/. Information about this project can also be found at http://www.voip-info.org/wiki-Asterisk.

Accessing Network Resources

<div style="text-align: right; font-size: 3em;">**8**</div>

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. openSUSE® 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 .

- **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 .

- **Managing Windows Files:** openSUSE 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 .

- **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 .

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 openSUSE 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*
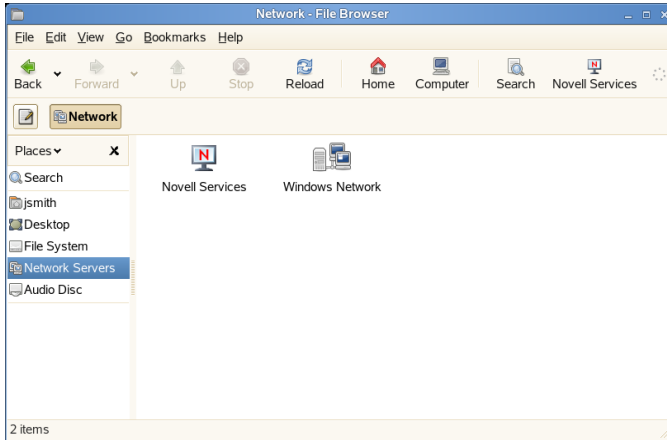
8.3 Sharing Folders

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 openSUSE 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.

Encryption with Passwords and Encryption Keys

9

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

Figure 9.1 *Password and Encryption Keys Main Window*
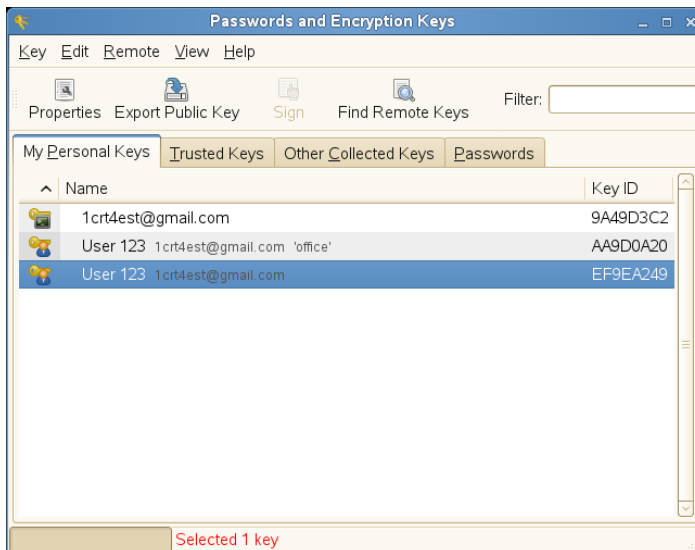
- Section 9.1, "Signing and Encryption" (page 232)

9.1 Signing and Encryption

Signing means attaching electronic signatures to e-mail messages or even software to prove its correct derivation. To keep someone else from writing messages using your name, and to protect both you and the people you send them to, you should sign your mails. Signatures help you easily check the sender of the messages you receive and distinguish good-natured messages from malicious messages.

Software developers sign their software so that you can check the integrity. Even if you get the software from an unofficial server, you can verify the package with the signature.

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

9.2 Generating a New Key Pair

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

IMPORTANT

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

-

-

9.2.1 Creating OpenPGP Keys

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

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Click *Key > Create New Key*.

3 Select *PGP Key*, then click *Continue*.

4 Specify your full name, e-mail address, and any additional information.

5 (Optional) Click *Advanced key options* to specify the following advanced options for the key.

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

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

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

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

The *Passphrase for New PGP Key* dialog box opens.

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

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

9.2.2 Creating Secure Shell Keys

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

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Click *Key > Create New Key*.

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

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

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

5 (Optional) Click *Advanced key options* to specify the following advanced options for the key.

Encryption Type: Specifies the encryption algorithms used to generate your keys. Select *RSA* to use the Rivest-ShamirAdleman (RSA) algorithm to create

the SSH key. This is the preferred and more secure choice. Select *DSA* to use the Digital Signature Algorithm (DSA) to create the SSH key.

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

6 Click *Just Create Key* to create the new key, or click *Create and Set Up* to create the key and set up another computer to use for authentication.

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

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

9.3 Modifying Key Properties

9.3.1 Editing OpenPGP Key Properties

The descriptions in this section apply to all OpenPGP keys.

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Double-click the PGP key you want to view or edit (or select the key, then click *Key > Properties*).

3 Use the options on the *Owner* tab to add a photo to the key or to change the passphrase associated with the key.

Photo IDs allow a key owner to embed one or more pictures of themselves in a key. These identities can be signed just like normal user IDs. A photo ID must be in JPEG format and should be no larger than 240x288 pixels.

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

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

See Section "Adding a User ID" (page 237) for more information.

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

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

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

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

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

Created: The date the key was created.

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

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

Subkeys: See Section "Editing OpenPGP Subkey Properties" (page 238) for more information.
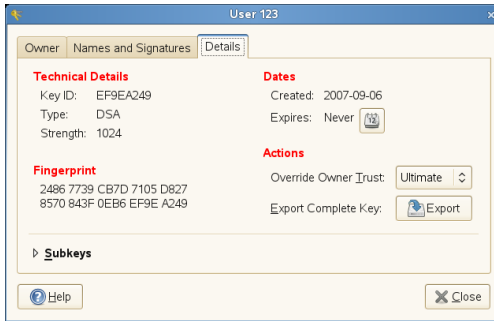
6 Click *Close*.

Adding a User ID

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

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

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Double-click the PGP key you want to view or edit (or select the key, then click *Key > Properties*).

3 Click the *Names and Signatures* tab, then click *Add Name*.

4 Specify a name in the *Full Name* field.

You must enter at least five characters in this field.

5 Specify an e-mail address in the *Email Address* field.

Your e-mail address is how most people will locate your key on a key server or other key provider. Make sure it is correct before continuing.

6 In the *Key Comment* field, specify additional information that will display in the name of your new ID

This information can be searched for on key servers.

7 Click *Close*.

Editing OpenPGP Subkey Properties

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

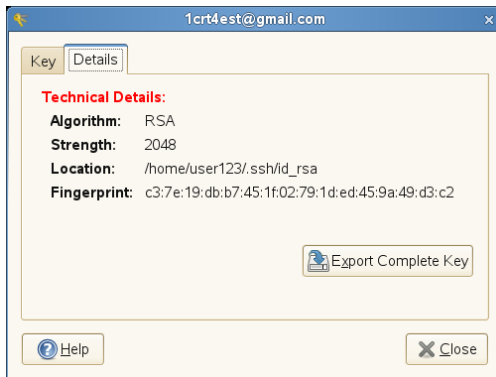**1** Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Double-click the PGP key you want to edit (or select the key, then click *Key > Properties*).

3 Click the *Details* tab, then click *Subkeys*.

4 Use the button to on the left of the dialog box to add, delete, expire, or revoke subkeys.
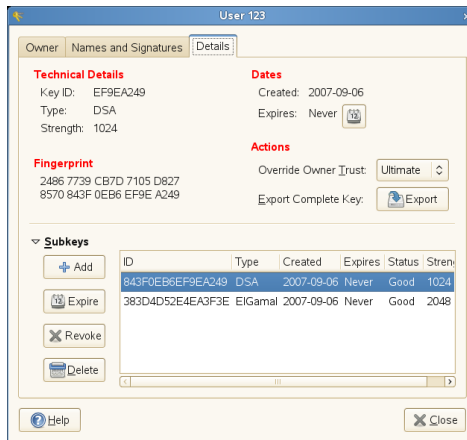
Each subkey has the following information:

ID: The identifier of the subkey.

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

Created: Specifies the date the key was created.

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

Status: Specifies the status of the key.

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

5 Click *Close*.

9.3.2 Editing Secure Shell Key Properties

The descriptions in this section apply to all SSH keys.

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Double-click the Secure Shell key you want to view or edit (or select the key, then click *Key > Properties*).

3 Use the options on the *Key* tab to change the name of the key or the passphrase associated with the key.

4 Click the *Details* tab, which contains the following properties:

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

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

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

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

5 Click *Close*.

9.4 Importing Keys

To import keys:

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Click *Key > Import*.

3 Select a file containing at least one ASCII armored public key.

4 Click *Open* to import the key.

You can also paste keys inside Passwords and Encryption Keys:

1 Select an ASCII armored public block of text, then copy it to the clipboard.

2 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

3 Click *Edit > Paste Keys*

9.5 Exporting Keys

To export keys:

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Select the keys you want to export.

3 Click *Key > Export Public Key*.

4 Specify a filename and location for the exported key.

5 Click *Save* to export the key.

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

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Select the keys you want to export.

3 Click *Edit > Copy Public Key*.

9.6 Backing Up Keyrings

You can back up your public and private keyrings to an archived file.

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Click *Key > Back up Key Rings*.

3 Specify a filename with a valid archive extension, then specify the location to save the archive.

You can choose any of the archive types file-roller supports.

4 Click *Save*.

9.7 Signing a Key

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

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

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Select the key you want to sign from the *Trusted Keys* or *Other Collected Keys* tabs.

3 Click *Key > Sign*.

4 Select how carefully the key has been checked, then indicate if the signature should be local to your keyring, and if your signature can be revoked

5 Click *Sign*.

9.8 File Manager Integration

Passwords and Encryption Keys integrates with the Nautilus file manager. You can encrypt, decrypt, sign, and verify files as well as import public keys from the file manager window without launching Passwords and Encryption Keys.

9.8.1 Encrypting Files From Nautilus

1 In Nautilus, right-click the files you want to encrypt.

2 Select *Encrypt*.

3 Select the people (recipients) you want to encrypt the file to, then click *OK*.

9.8.2 Signing Files From Nautilus

1 In Nautilus, right-click the files you want to sign.

2 Select *Sign*.

3 Select a signer, then click *OK*.

4 If prompted, specify the passphrase of your private key, then click *OK*.

9.8.3 Decrypting Files From Nautilus

To decrypt an encrypted file in Nautilus, simply double-click the file you want to decrypt.

If prompted, specify the passphrase of your private key.

9.8.4 Verifying Signatures From Nautilus

To verify files, simply double-click the detached signature file. Detached signature file names often have a `.sig` extension.

9.9 Encryption Preferences

9.9.1 Encryption Settings

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Click *Edit > Preferences*, then click the *Encryption Settings* tab.
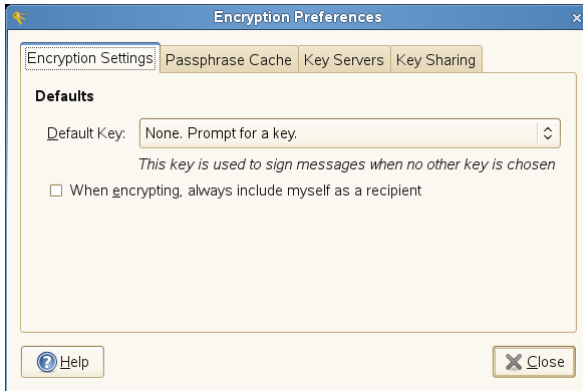
3 Choose from the following options:

Default Key: Specifies the key you want to use to sign files. Files will be encrypted to this key if the *When encrypting, always include myself as a recipient* option is selected.

When encrypting, always include myself as a recipient: Select this option to add yourself to the recipients list for all files encrypted by Passwords and Encryption Keys. If you do not select this option, and you do not select yourself as a recipient, you cannot decrypt any files you encrypt.

4 Click *Close*.

9.9.2 Passphrase Cache

Enabling Passwords and Encryption Keys's passphrase caching ability allows you to perform many operations that require entering your passphrase without reentering it every time `seahorse-daemon` takes the place of `gpg-agent`. Letting the cached passphrases expire is usually a good idea. This will then require reentering your passphrase, but adds security.

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Click *Edit > Preferences*, then click the *Passphrase Cache* tab.
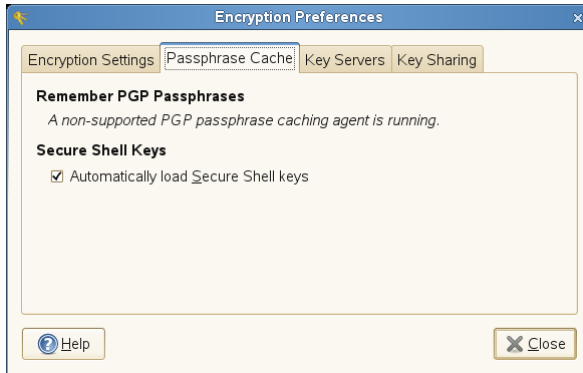
3 Choose from the following options:

Never remember passphrases: Select this option to not remember any passphrase.

Remember passphrases for ... minutes: Specifies the amount of time, in minutes, for storing passphrases.

Always remember passphrases whenever logged in: Select this option to remember any passphrases whenever you are logged in to the session.

**Ask me before using a cached passphrase:**   Select this option to ask you before a stored passphrase is used.

Automatically load Secure Shell keys: Select this option to automatically cache any Secure Shell key.

4 Click *Close*.

9.9.3 Key Servers

You can keep your keys up to date by syncing keys periodically with remote keyservers. Syncing will make sure that you have the latest signatures made on all of your keys so that the web of trust will be the most useful.

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Click *Edit > Preferences*, then click the *Key Servers* tab.
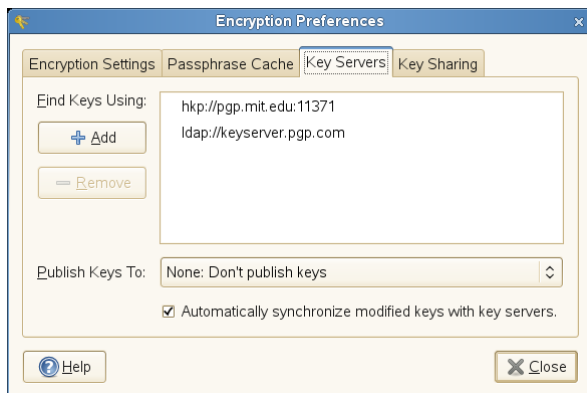
Passwords and Encryption Keys provides support for HKP and LDAP keyservers.

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

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

3 Click *Close*.

9.9.4 Key Sharing

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

1 Click *Computer > More Applications > Utilities > Passwords and Encryption Keys*.

2 Click *Edit > Preferences*, then click the *Key Sharing* tab.
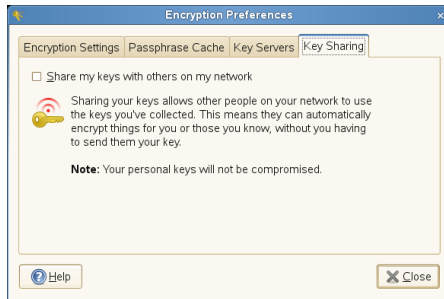
3 Select *Share my keys with others on my network.*

4 Click *Close*.

Searching with Beagle

10

Beagle is a search tool that indexes your personal information space (normally your home directory) to find whatever you're 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.

10.1 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 10.1 *Desktop Search Dialog Box*
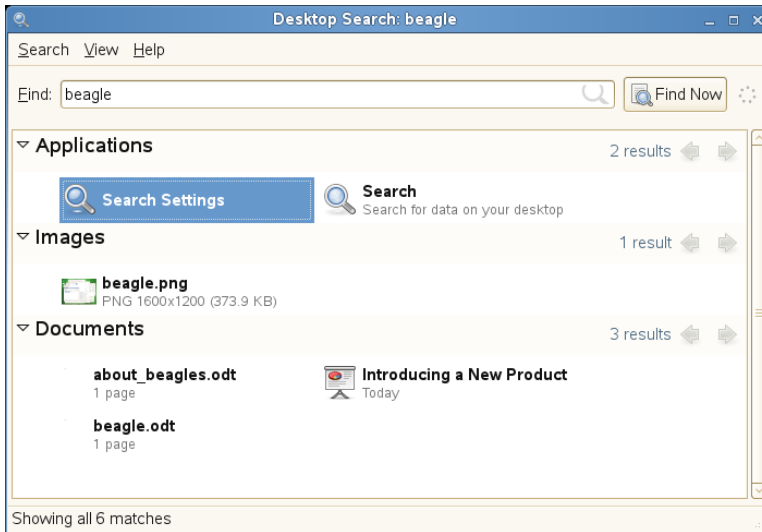
You can use the results lists to open a file, forward it via e-mail, or display it in the file manager. Simply right-click an item in the results list and select the option you want. The options available for an item in the results list depend on the type of file it is. Selecting a file in the list displays a preview of the file and information such as the title, path, and date the file was last modified or accessed.

Figure 10.2   *Desktop Search Dialog Box With a File Selected*
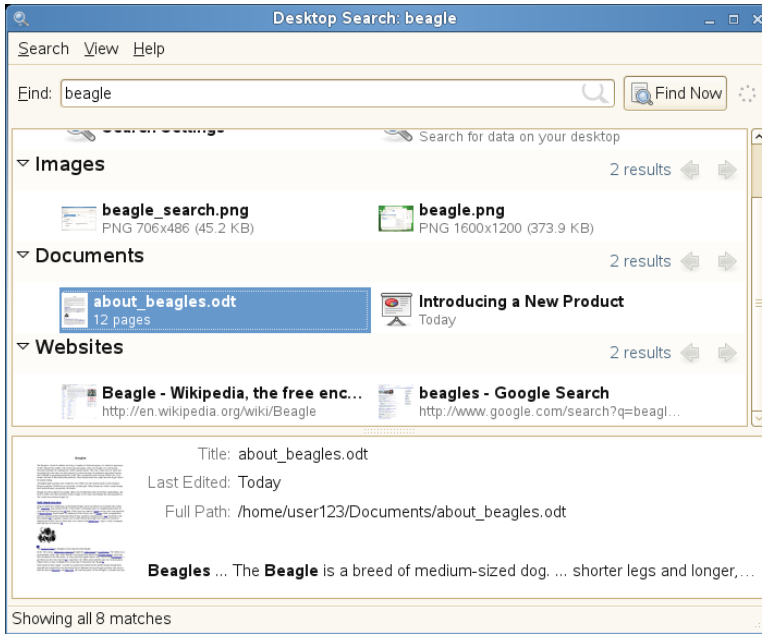
Use the *Search* menu to limit your search to files in a specific location, such as your address book or Web pages, or to display only a specific type of file in your results list. The *View* menu lets you sort the items in your results list according to name, relevance, or the date the file was last modified.

You can also access Desktop Search by clicking *Computer > More Applications > System > Search*.

10.2 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").

10.3 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 10.1   *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 ??? (page 253))
creator	Document	Creator of the document, mapped to dc:creator (for example, creator of PDF files)

Keyword	Applies to	Property
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
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 10.2, "Search Tips" (page 251). 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":
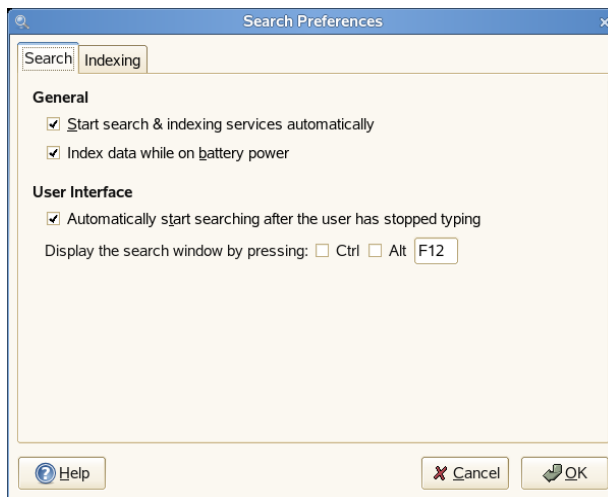
```
apple ext:pdf OR ext:html author:john –title:oranges
```

10.4 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 openSUSE 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.
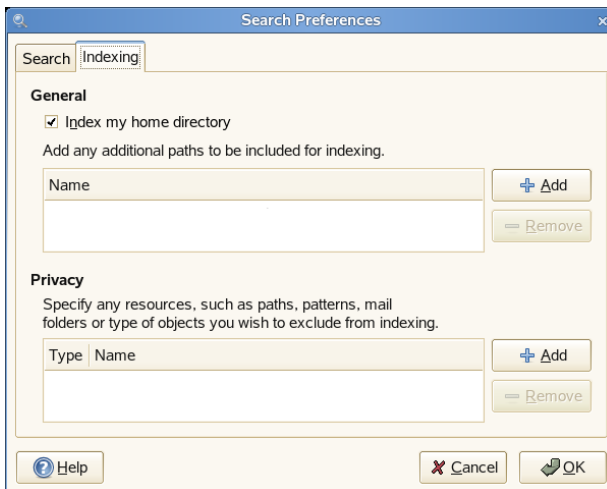
3 Click *OK*.

10.5 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*.

10.6 Preventing Files and Directories from Being Indexed

Use the Search Preferences dialog box to specify resources that you don't 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.

Taking Notes with Tomboy 11

Tomboy is a GNOME desktop application for taking notes that gives you the ability to organize the ideas and information you deal with every day. Among other things, it can help you collect and sort all kind of data, write down your ideas, make to do lists, and allocate your contacts.

Tomboy also has some useful editing features to help you customize your notes, including:

- Highlighting search text

- Inline spell checking

- Auto-linking Web and e-mail addresses

- Undo/redo support

- Font styling and sizing

- Bulleted lists

Tomboy is located on the GNOME panel ( ), and by default, is started automatically when you log into GNOME. You can also access Tomboy by clicking *Computer > More Applications > Utilities > Tomboy Notes*.

This sections contains the following information
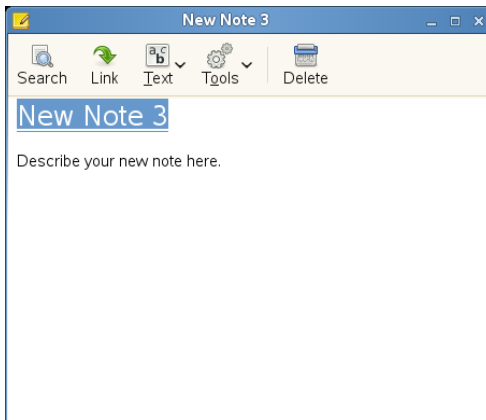
11.1 Creating Notes

To create a new note, click the Tomboy Notes icon () in your GNOME Panel, then select *Create New Note*.

Figure 11.1   *A New Tomboy Note*

To edit the note, click the content area, then use the keyboard to add and remove content. The first line of the note holds the title. By default, this is populated with the text New

`Note #`. You can change the title by clicking the line and using the keyboard to change the title. By default, focus is given to the content area upon creation of a new note, so you can immediately start editing the note without clicking the content area. For more information on formatting the contents of a note, see Section 11.5, "Formatting Text in Notes" (page 261).

Your note is saved automatically.

You can then organize the notes you create by linking related notes and ideas together. Fore more information, see Section 11.3, "Linking Notes" (page 260).

11.2 Searching All Notes

To get an overview of all your notes, click , then select *Search All Notes*. By default, the Search All Notes dialog box displays your notes in the order they were last modified. Click the *Note* or *Last Changed* column headings to change the sort order. Click the column heading a second time to toggle between ascending and descending order.

Figure 11.2   *Search All Notes Dialog Box*
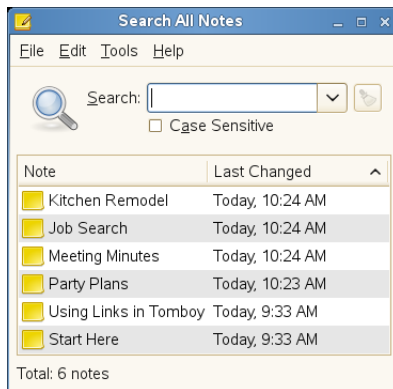
You can find specific notes by entering text into the *Search* field. The list of notes automatically updates to list only the notes that contain matching text.

To open a note listed in the Search All Notes dialog box, do any of the following:

- Double-click a note.

- Select a note, then click *File > Open*.

- Right-click a note, then select *Open*.

- Select a note, then press Ctrl + O.

11.3 Linking Notes

You can link notes in Tomboy by highlighting text in your current note, then clicking the *Link* button in the toolbar. This creates a new note and underlines the note's title in the current note.

For example, if your current note contains the phrase "resume," you can select this text, then click *Link* to create a new note with the title "resume." A link is also created in the current note which you can click to open the new "resume" note.

Figure 11.3 *Links in Tomboy Notes*
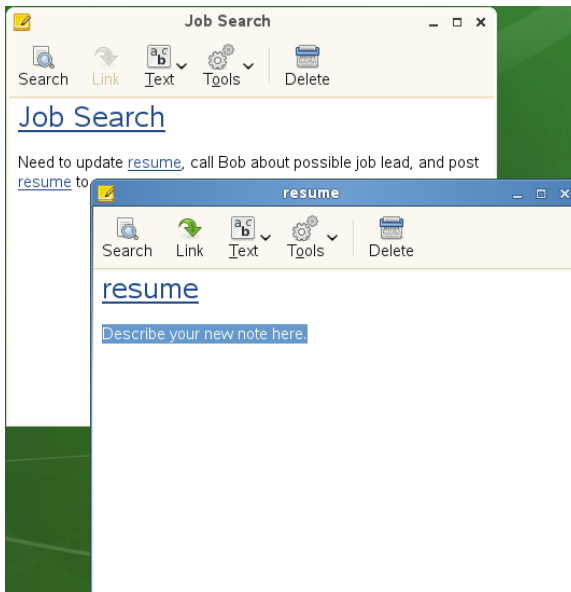
If you change the title of a note, the links in other notes to the note whose title you changed are automatically updated.

Typing the name of another note in your current note automatically links that note for you.

To see what other notes link to the current note, click *Tools > What links here?*

11.4 Accessing Your Notes

To access your notes, click the Tomboy icon () on the GNOME panel, then select one of the notes you recently viewed or created from the menu, or Search for older notes (see for more information). The Table of Contents lists all your notes in the order they were last modified.

To force a note to always appear in the panel menu regardless of when you last accessed it, click the thumbtack icon to the right of the note to "pin" it to the menu. Notes that are pinned to the panel menu have a thumbtack icon that look like this: . Notes that are not pinned to the panel menu have thumbtack icons that look like this: .

11.5 Formatting Text in Notes

You can use the *Text* button on the Tomboy toolbar to format text within your notes. The *Text* button displays a drop-down menu with the following options:

- **Undo:** Allows you to revert previous changes made to your note during the current session. To undo your last change using the keyboard, press Ctrl + Z.

- **Redo:** Allows you to put back changes that were removed using the *Undo* feature. To redo your last change using the keyboard, press Shift + Ctrl + Z.

- **Bold:** To make text within your note bold, select the text you want to modify, then select the *Bold* option from the *Text* drop-down menu. You can also press Ctrl + B after selecting text.

- **Italic:** To make text within your note italic, select the text you want to modify, then select the *Italic* option from the *Text* drop-down menu. You can also press Ctrl + I after selecting text.first select the text

- **Strikeout:** Puts a line through the selected text. To add a strikeout, select the text you want, then select the *Strikeout* option from the *Text* drop-down menu. You can also press Ctrl + S after selecting text.

- **Highlight:** Puts a yellow background around the selected text. To add a highlight, select the text you want, then select the *Highlight* option from the *Text* drop-down menu. You can also press Ctrl + H after selecting text.

- **Fixed Width:** The fixed width style allows text to use a fixed width font. To change existing text, select the text you want to modify, then select the *Fixed Width* option from the *Text* drop-down menu. You can also select the *Fixed Width* option from the *Text* drop-down menu before you start typing to have the text you type be in a fixed width style.

- **Font Size:** There are four options in this part of the menu: *Small*, *Normal*, *Large*, and *Huge*. Each of these options represents a font size you can use for the selected text in the note. To modify the font size, select the text you want to modify, then select one of the *Font Size* options from the *Text* drop-down menu.

- **Bullets:** Select the *Bullets* option from the *Text* drop-down menu to begin or end a bulleted list. If your cursor is inside a bulleted list, the *Increase Indent* and *Decrease Indent* options are enabled.

  For more information on bullets, see Section 11.5.1, "Using Bulleted Lists" (page 263).

- **Increase Indent:** With the cursor on a bulleted list line, select this option to shift the current line to the right.

- **Decrease Indent:** With the cursor on a bulleted list line, select this option to shift the current line to the left.

- **Find in This Note:** Lets you search for text within the current note. Selecting this option causes a *Find* bar to open at the bottom of the note. To open the *Find* bar using the keyboard, press Ctrl + F.

  Enter the text you want to find. After entering text, any matches are highlighted. Click *Find Next* to highlight the next match and place the cursor there. Click *Previous* to move to the previous match.

Use the *Case sensitive* checkbox to limit the matches to ones that exactly match the case of the search string.

To close the find bar, click *X* on the far left or press the Escape key.

11.5.1 Using Bulleted Lists

Beginning a Bulleted List

To begin a bulleted list, use any of the following methods:

- Select *Bullets* from the *Text* drop-down menu.

- Start a line of text with a single dash character (-), type text immediately following the dash, then press Enter.

Ending a Bulleted List

To end a bulleted list, do any of the following:

- Select *Bullets* from the *Text* drop-down menu.

- Press Enter on a blank bulleted line.

- Select *Decrease Indent* from the *Text* drop-down menu until the current line is no longer part of the bulleted list.

- Press Shift + Tab until the current line is no longer part of the bulleted list.

Increasing Indentation

To increase the line indentation in a bulleted list, select *Increase Indent* from the *Text* drop-down menu, or press the Tab key.

Decreasing Indentation

To decrease the line indentation in a bulleted list, select *Decrease Indent* from the *Text* drop-down menu, or press Shift + Tab.

11.6 Exporting Notes to HTML

You can create an HTML (Hypertext Markup Language) document from one or more notes.

1 In the note you want to export, select the *Export to HTML* option from the *Tools* drop-down menu.

2 Specify where to save the HTML file.

3 (Optional) Select *Export linked notes* to export any notes for which a link exists in the current note.

Select *Include all other linked notes* to export all notes for which a link exits in any of the notes linked to your current note.

4 Click *Save*.

11.7 Deleting Notes

To delete a note, click the *Delete* button on the Tomboy toolbar. You will see a dialog box asking if you want to permanently delete the note and its contents. Click *Delete* to discard the note permanently, or click *Cancel* to abort the process.

Links to this note from other notes will still exist, but will re-create the note upon activation.

11.8 Printing Notes

Select the *Print* option on the *Tools* drop-down menu to print the current note. You will be presented with the standard GNOME print dialog box.
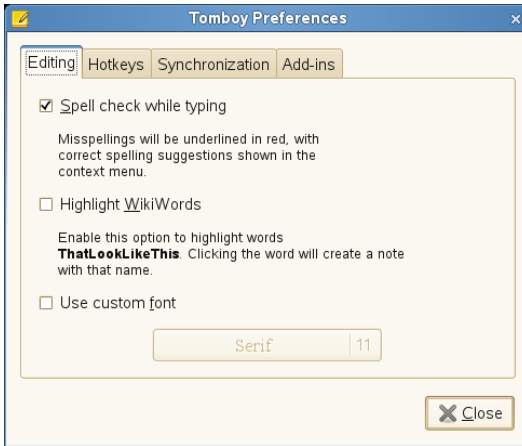
11.9 Configuring Tomboy Preferences

To modify preferences for Tomboy, right-click the Tomboy icon () on the GNOME panel, then select *Preferences*. You can configure the following:

11.9.1 Editing Preferences

The Editing tabbed page lets you set preferences related to editing notes.

Figure 11.4 *Tomboy Editing Preferences*

The Editing preferences include the following:

- **Spell check while typing:** Underlines misspellings in red, and provides suggestions in the right-click context menu.

- **Highlight WikiWords:** Creates links for phrases `ThatLookLikeThis`. Clicking the link creates a new note with the title corresponding to the link text.

- **Use custom font:** Sets a custom font to be used in your notes. If this option is disabled, the default system font will be used.

11.9.2 Hotkey Preferences

The Hotkeys tabbed page lets you set global key combinations to perform different functions in Tomboy. To set key combinations, the *Listen for Hotkeys* checkbox must be selected. Press Alt + H to toggle this option on or off.

Figure 11.5 *Tomboy Hotkey Preferences*
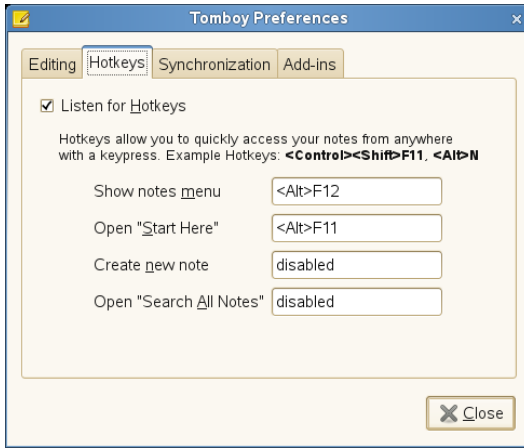
The Hotkey preferences include the following:

- **Show notes menu:**   Specify the key combination to open the notes menu.

- **Open "Start Here":**   Specify the key combination to open the "Start Here" note, which is preinstalled with Tomboy.

- **Create new note:**   Specify the key combination to create a new note.

- **Open "Search All Notes":**   Specify the key combination to open the *Search All Notes* dialog box.

11.9.3 Synchronization Preferences

The Synchronization tabbed page lets you share notes, announce notes, receive announcements, and get notes from other instances of Tomboy. This can be useful, for example, if you want to work on a single set of notes in separate instances of Tomboy running on your desktop and your laptop.

Figure 11.6 *Tomboy Synchronization Preferences*
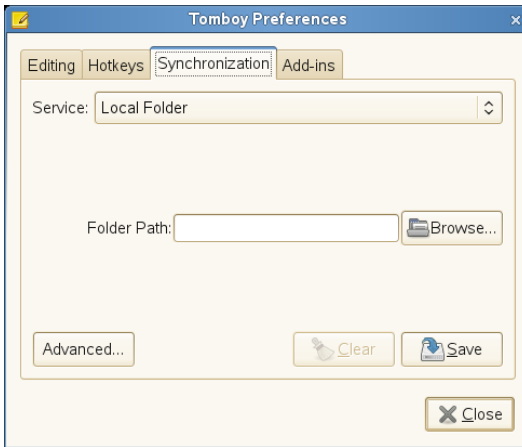
The Synchronization preferences include the following:

- **Service:**   Specify the location of the synchronized files. By default, you can select a local folder or WebDAV server. To synchronize to a remote location, click the *Add-ins* tab, select *Synchronization > SSH Sync Service Add-in*, then click *Enable*. This adds an *SSH (sshfs FUSE)* option to the *Service* drop-down list.

  Specify the information required for the Service you selected, then click *Save*.

- **Advanced:**   Specify what happens when a conflict is detected between a local note and a note on the configured synchronization server. You can choose to be prompted when a conflict occurs, to rename the local note, or to replace the local note with the note on the synchronization server.

- **Clear:**   Clears your current synchronization settings. If you choose to clear your synchronization settings, you might have to synchronize your notes again when you save new settings.

To synchronize your notes, click *Tools > Synchronize Notes* in any open note.

11.9.4 Add-ins Preferences

The Add-ins tabbed page lets you enable and configure Tomboy add-ins (formerly called plugins). Tomboy comes with several pre-installed add-ins, such as Backlinks, Bugzilla Links, Evolution Mail Integration, Export to HTML, Fixed Width, Note of the Day, Printing Support, and Sticky Notes Importer.

The list of installed add-ins is shown on the left of the Add-ins tabbed page. To enable or disable an add-in, select the plug-in you want, then click *Enable* or *Disable*.

Figure 11.7   *Tomboy Add-ins Preferences*
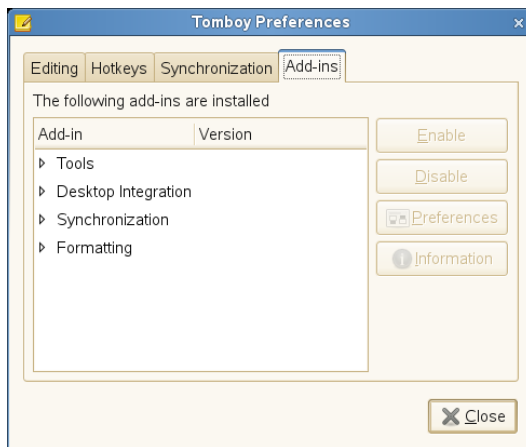
Additional add-ins can be found in the Tomboy Add-ins [`http://live.gnome`
`.org/Tomboy/PluginList`] page. Place new add-ins in the `$HOME/.tomboy/`
`addins` folder.

Part III. Internet

Browsing with Firefox

12

Included with your openSUSE® is the Mozilla Firefox Web browser. With features like tabs, pop-up window blocking, and download and image management, Firefox combines the latest Web technologies. You can view more than one Web page in a single window. You can suppress annoying advertisements and disable images that only slow you down. Its easy access to different search engines helps you find the information you need. Start the program 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 274). 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*
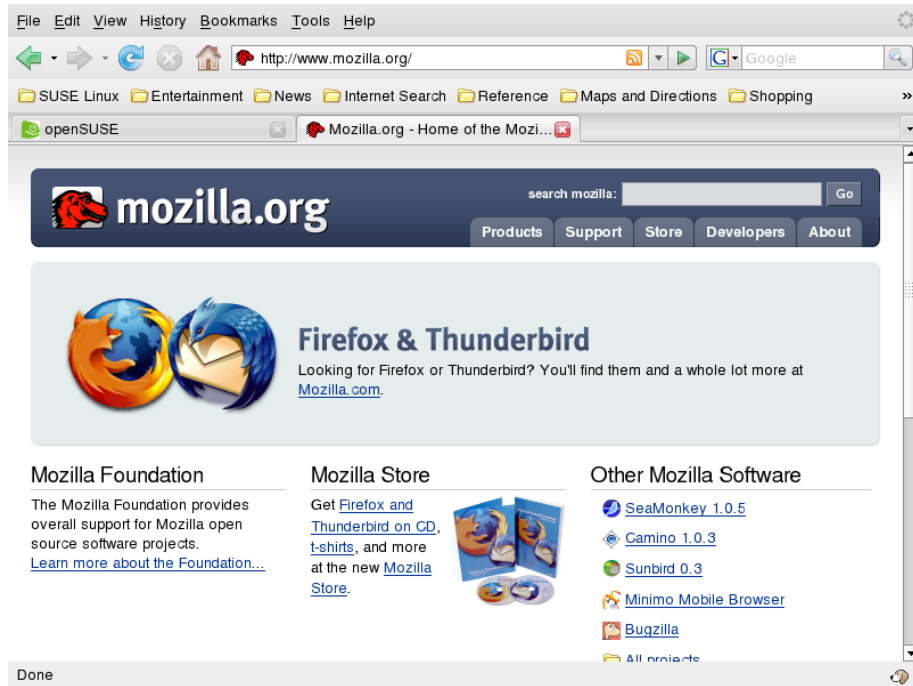
12.1.1 Tabbed Browsing

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

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

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: the search bar and the find bar. The search bar looks for pages while the find bar looks for things on the current page.

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 openSUSE using the current engine, click in the search bar, type `openSUSE`, 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.

12.2.2 Installing a Different Search Engine

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

1 Establish an Internet connection first.

2 Click the icon to the left of the search bar.

3 Select *Manage Search Engines* from the menu.

4 Click *Get more search engines*.

5 Firefox displays a Web page with available search engines. You can choose from Wikipedia, IMDB, Flickr, and others. Click the desired search plug-in.

6 Install your search plug-in with *Add* or abort with *Cancel*.

12.2.3 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 *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 277).

Figure 12.2 *Using the Firefox Bookmark Manager*
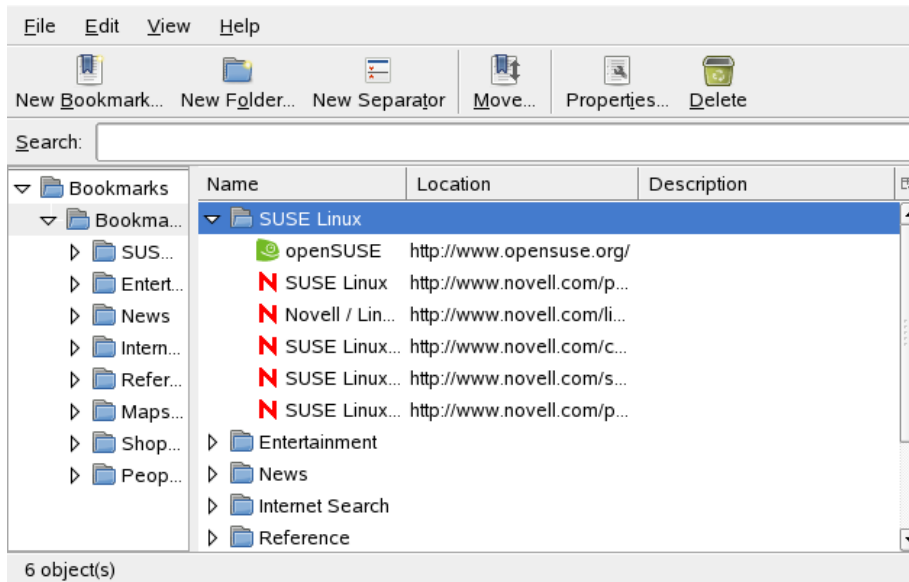
To open the bookmark manager, click *Bookmark > Organize Bookmarks*. A window opens and displays your bookmarks. With *New Folder*, create a new folder with a name and a description. If you need a new bookmark, click *New Bookmark*. This lets you insert the name, location, keywords, and also a description. The keyword is a shortcut to your bookmark. 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 and click *Next* or choose a file. 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 it and choose *Subscribe to NAME OF THE FEED*. Click *Subscribe now* in the page that opens. A dialog box opens in which to select the name and location of your live bookmark. Confirm with *Add*.

Some sites do not tell Firefox that they support a news feed, although they actually do. To add a live bookmark manually, you need the URL of the feed. Do the following:

Procedure 12.1 *Adding a Live Bookmark Manually*

1 Open the bookmark manager with *Bookmarks > Organize Bookmarks*. A new window opens.

2 Select *File > New Live Bookmark*. A dialog box opens.

3 Insert a name for the live bookmark and add your URL in the *Feed Location*, for example, `http://www.novell.com/newsfeeds/rss/coolsolutions .xml`. Firefox updates your live bookmarks.

4 Close your bookmark manager.

12.4 Using the Download Manager

With the help of the download manager, keep track of your current and past downloads. To open the download manager, click *Tools > Downloads*. Firefox opens a window with your downloads. While downloading a file, see a progress bar and the current file. If necessary, pause a download and resume it later. To open a downloaded file, click *Open*. With *Remove*, remove it from the list. If you need information about the file, right-click the filename and choose *Properties*.

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

12.5 Customizing Firefox

Firefox can be customized extensively. You can install extensions, change themes, and add smart keywords for your online searches.

12.5.1 Extensions

Mozilla Firefox is a multifunctional application, which means that you can download and install add-ons, known as extensions. For example, add a new download manager and mouse gestures. This has the advantage that Firefox itself stays small and lean.

To add an extension, click *Tools > Add-ons > Extensions*. In the bottom-right corner, click *Get Extensions* to open the Mozilla extensions update Web page where you can choose from a variety of available extensions. Click the extension to install then click the install link to download and install it. When you restart Firefox, the new extension is functional. You can also look at the various extensions at `http://addons .mozilla.org/`.

***Figure 12.3*** *Installing Firefox Extensions*
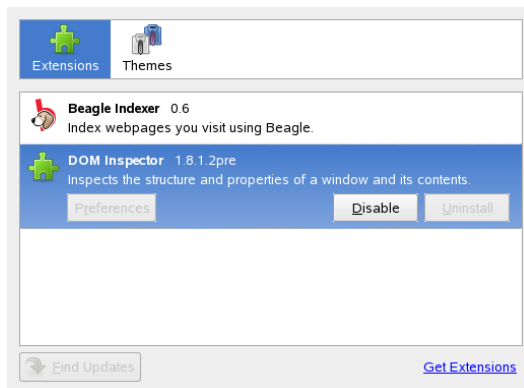
12.5.2 Changing Themes

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. When installing a theme, Firefox asks for confirmation first. Allow the installation or cancel it. After a successful installation, you can enable the new theme.

1 Click *Tools* > *Add-ons* > *Themes*.

2 In the new dialog that appears, click *Get Themes*. If have you already installed a theme, find it in the list, as in Figure 12.4, "Installing Firefox Themes" (page 280).

Figure 12.4   *Installing Firefox Themes*
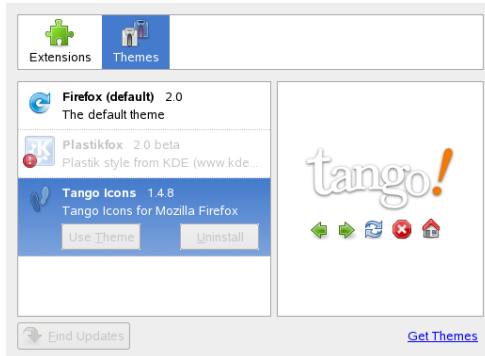
3 A new window appears with the Web site `https://addons.mozilla.org`.

4 Choose a theme and click *Install Now*.

5 Confirm the download and installation.

6 After downloading the theme, select the theme from the list of themes then click *Use Theme*.

7 Close the window and restart Firefox.

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*.

12.5.3 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 "command" for searching the Web. For example, if you use Wikipedia often, use a smart keyword to simplify this task:

1 Go to `http://en.wikipedia.org`.

2 After Firefox displays the Web page, see the search text field. Right-click it then choose *Add a Keyword for this Search* from the menu that opens.

3 The *Add Bookmark* dialog appears. In *Name*, name this Web page, for example, *Wikipedia (en)*.

4 For *Keyword*, enter your abbreviation of this Web page, for example, *wiki*.

5 With *Create in*, choose the location of the entry in your bookmarks section. You can put it into any folder.

6 Finalize with *Add*.

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

12.6 Printing from Firefox

Configure the way Firefox prints the content it displays using the *Page Setup* dialog. Click *File* > *Page Setup* then go to the *Format & Options* tab to select the orientation of your print jobs. You can scale or make it adjust automatically. To print a background,

select *Print Background (colors & images)*. Click the *Margins & Header/Footer* tab to adjust margins and select what to include in the headers and footers.

After you configured your settings, print a Web page with *File > Print*. Select the printer or a file in which to save the output. With *Properties*, set the paper size, specify the print command, choose grayscale or color, and determine the margins. When satisfied with your settings, approve with *Print*.

12.7 For More Information

Get more information about Firefox from the official home page at `http://www.mozilla.com/firefox/`. Refer to the integrated help to find out more about certain options or features.

Transferring Data From the Internet

13

GNOME FTP (gFTP) is a multithreaded file transfer client with the following features:

- Support for the FTP, FTPS (control connection only), HTTP, HTTPS, SSH, and FSP protocols.

- FTP and HTTP proxy server support.

- Support for FXP file transfers (that is, transferring files between two remote servers via FTP).

- Support for UNIX, EPLF, Novell®, MacOS, VMS, MVS and NT (DOS) style directory listings.

- Bookmarks menu that lets you quickly connect to remote sites.

To start GNOME FTP, click *Computer > More Applications > Internet > GNOME FTP*.

Figure 13.1   *GNOME FTP*
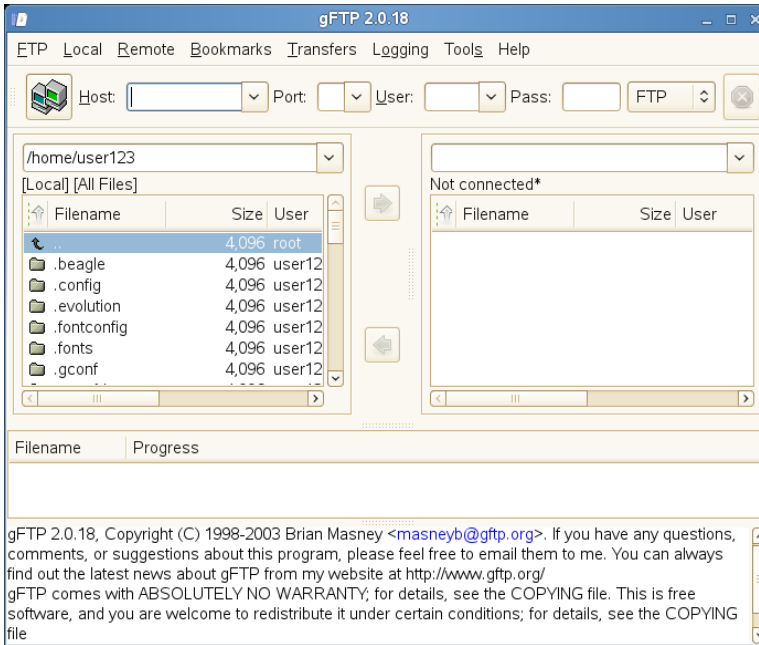
- Section 13.1, "Connecting to a Remote Server" (page 284)

- Section 13.2, "Transferring Files" (page 285)

- Section 13.3, "Setting Up an HTTP Proxy Server" (page 286)

- Section 13.4, "ASCII vs. Binary Transfers" (page 286)

13.1 Connecting to a Remote Server

1 In GNOME FTP, click *Remote > Open URL*.

2 Specify a URL to connect to, then enter a username and password.

Leave the username blank to log in as anonymous user.

3 Click *Connect*.

Upon successful connection, you will see a list of the files on the remote server on the right of the GNOME FTP window (the file list on the left side is your local computer's directory of files). You can now uploaded and downloaded files.

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

13.2 Transferring Files

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

Figure 13.2   *gFTP File Transfer*
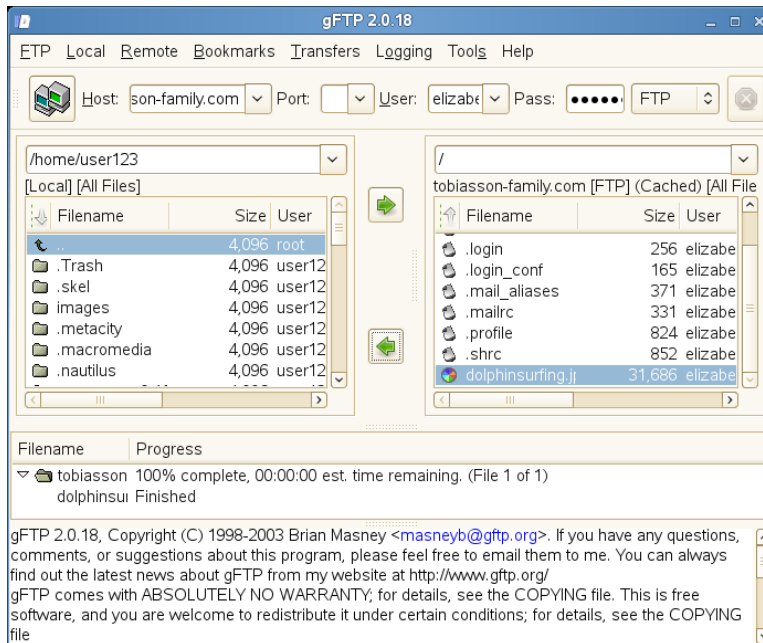
To download files, select the files you want to download in the remote list of files, then click the left arrow button. The progress of each download is listed in the field in the

middle of the window. If the transfer is successful, you will see the files in the directory listing on the left.

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

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

13.3 Setting Up an HTTP Proxy Server

1 In GNOME FTP, click *FTP > Options*, then click the *FTP* tab.

2 Select *HTTP proxy* from the *Proxy server type* drop-down list, then specify your proxy server information on that dialog box.

3 Click the *HTTP* tab, then enter the same proxy server information on that dialog box.

4 Click *OK*.

13.4 ASCII vs. Binary Transfers

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

To change the transfer mode, click *FTP > Binary* or *FTP > Ascii*.

For FTP transfers, you can also click *FTP > Options*, click the FTP tab, then select the *Transfer files in ASCII mode* option.

Reading Newsfeeds with Liferea

14

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.
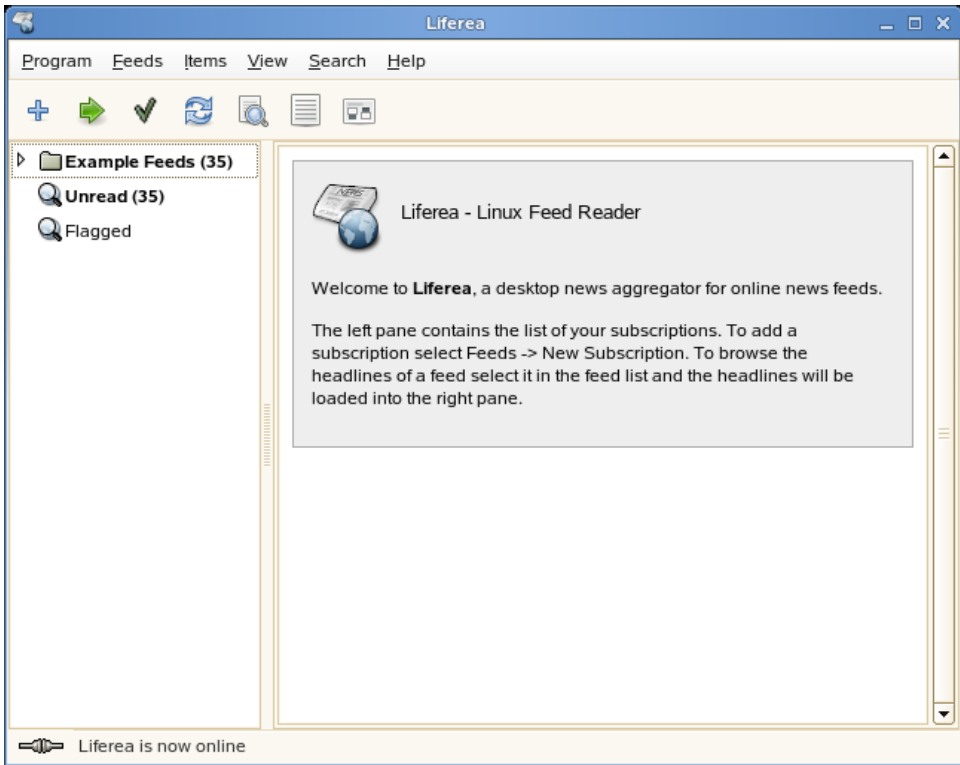
This chapter contains the following information:

14.1 Starting Liferea

To start Liferea, click *Computer > More Applications > Internet > Liferea*.

Figure 14.1   *Liferea Main Screen*

By default, the Liferea interface is divided into two sections: the Feed List and the Item List. The Feed List is on the left. It 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 more comfortable viewing.

14.2 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 .

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 14.2   *Reading a Newsfeed with Liferea*
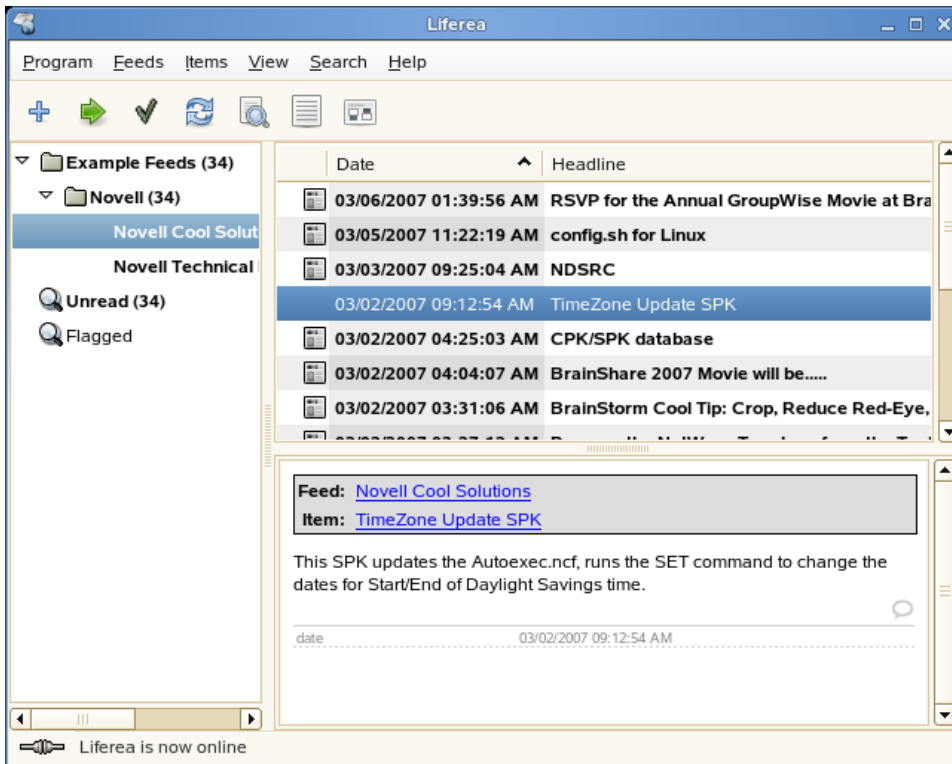
14.3 Creating a New Subscription

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 .

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.

14.4 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 can update all of your subscriptions at once, update only the subscriptions in a folder, or update a specific individual subscription.

To update all subscriptions at once: Click *Feeds > Update All*.

To update all subscriptions within a folder: Select the folder you want to update, then click *Feeds > Update Selected*.

To update a specific subscription: To update a specific subscription, select the subscription and click *Feeds > Update Selected*.

14.5 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

15

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 15.7, "For More Information" (page 310) for ideas of where to find more information about the program.

15.1 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.

15.2 Starting The GIMP

Start The GIMP from the main menu. Alternatively, enter `gimp &` in a command line.

15.2.1 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.

15.2.2 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 15.1, "The Main Window" (page 297), 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 15.1   *The Main Window*
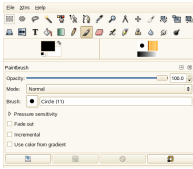
The current foreground and background color are shown in two overlapping boxes. The default colors are black for the foreground and white for the background. Click the box to open a color selection dialog. Swap the foreground and background color with the bent arrow symbol to the upper right of the boxes. 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 15.5.6, "Layers" (page 308). *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 15.5.5, "Undoing Mistakes" (page 307).

15.3 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.

15.3.1 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 15.5.7, "Image Modes" (page 308). 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.

15.3.2 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.

15.3.3 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 is the quality of the scanned image. However, this also results in a correspondingly larger file and the scanning process can take a very long time at higher resolutions. 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.

15.3.4 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.

15.4 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 15.5.6, "Layers" (page 308).

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 15.5.7, "Image Modes" (page 308)

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.

15.5 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.

15.5.1 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 15.5.2, "Selecting Parts of Images" (page 303)). *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 302).

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.

15.5.2 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 tools 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.

15.5.3 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 15.2, "The Basic Color Selector Dialog" (page 305), is described here. The new color is shown in *Current*. The previous color is shown in *Old*.

Figure 15.2   *The Basic Color Selector Dialog*
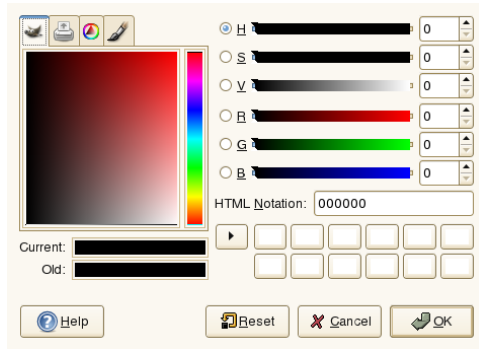
The easiest way to select a color is using the colored areas in the boxes to the left. In the narrow vertical bar, click a color similar to the desired color. The larger box to the left then shows available nuances. Click the desired color. It is then shown in *Current*. If that color is not what you 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 15.5.6, "Layers" (page 308). 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.

15.5.4 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.

15.5.5 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.

15.5.6 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.

15.5.7 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.

15.5.8 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.

15.6 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 15.3   *The Print Dialog*
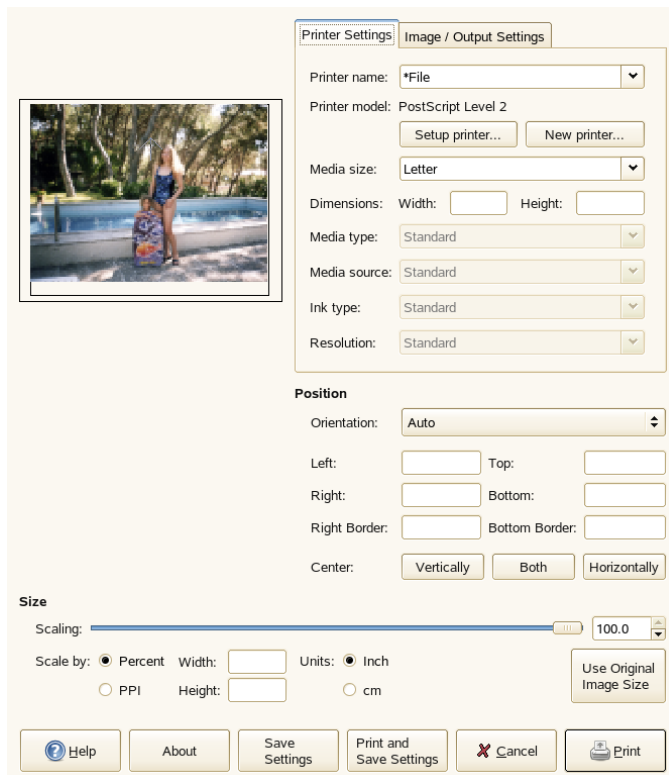
In the bottom portion of the window, adjust the image size. Press *Use Original Image Size* to take these settings from the image itself. This is recommended if you set an ap-

propriate 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.

15.7 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

16

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 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 tell it where to find 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 16.1 *F-Spot Main Window*
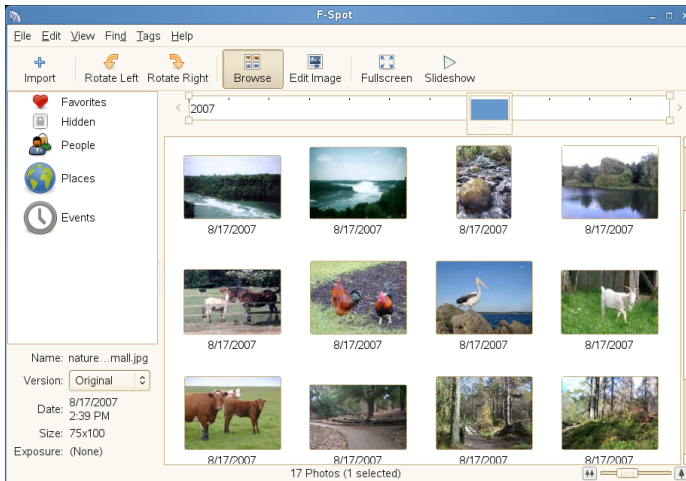
Thumbnails of your images are displayed in the right part of the window, and detailed information for a selected image is displayed in a sidebar to the left. By default, your photos are displayed in reverse-chronological order, so your newest photos are always at the top. You can sort your photos in 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 16.1 *F-Spot Toolbar*

Icon	Description
Rotate (Left or Right)	Use this shortcut to change an image's orientation.
Browse	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.
Edit Image	This mode allows you to select one image and do some basic image processing. Details are available in Section 16.7, "Basic Photo Editing" (page 323).

Icon	Description
Fullscreen	Switch to fullscreen display mode.
Slideshow	Start a slide show.

16.1 Importing Photos

You can import photos from your hard drive or from your digital camera (see Section 16.2, "Downloading Pictures from Your Camera" (page 314) for more information). F-Spot automatically makes copies of photos imported from your hard drive. If you don't 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 16.2   *Importing Images into F-Spot*
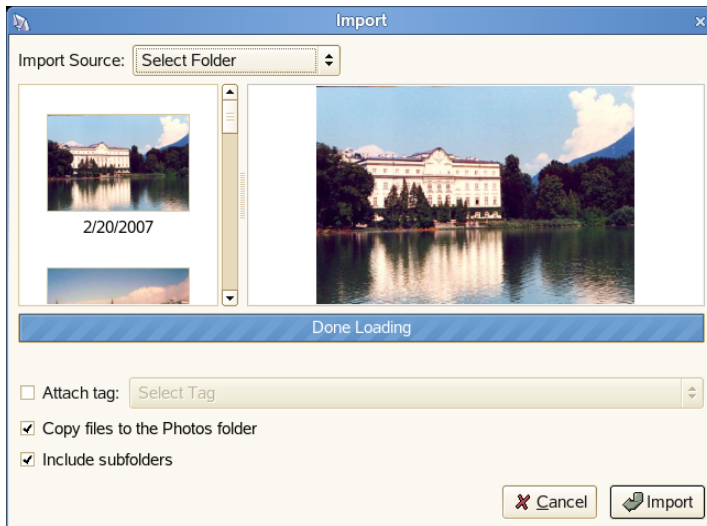
By default, F-Spot copies your photos to the /Photos directory in your home directory. You can change the directory F-Spot uses by clicking *Edit > Preferences*.

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.

16.2 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.
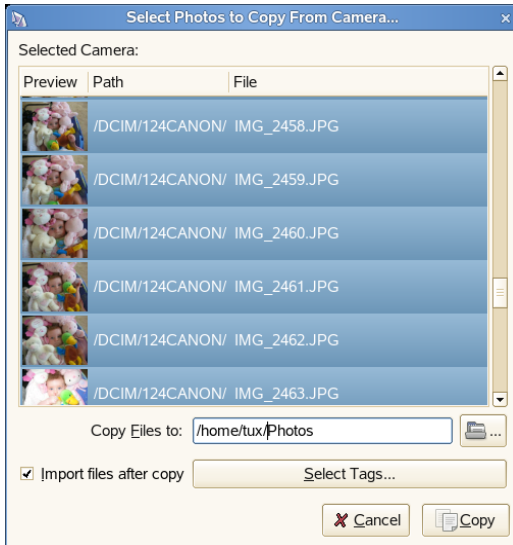
3 Click *Copy*.

4 When the photo transfer is complete, click *OK*.

The photos are added to your catalog.

16.3 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 16.3   *F-Spot Metadata Browser*
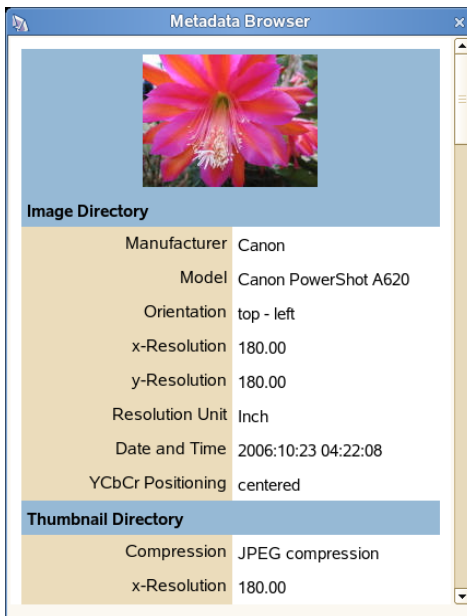
16.4 Managing Tags

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 loved ones, 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.

16.5 Searching and Finding Photos

As mentioned in Section 16.4, "Managing Tags" (page 316), 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 16.4 *Show Find Bar in F-Spot*
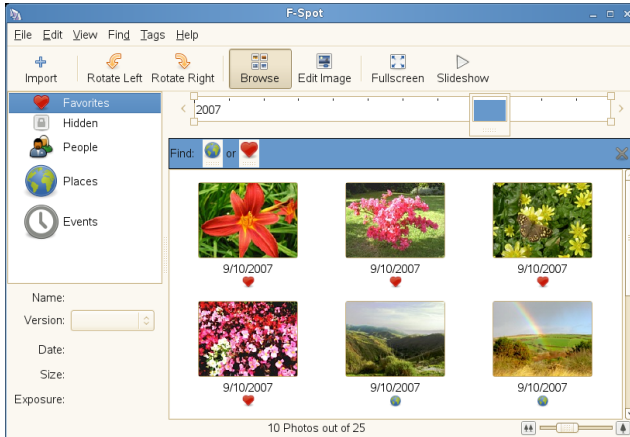
To find photos that are tagged with more than one tag, select the first tag in the tag view (or drag the tag onto the Find bar), then drag the second tag and drop it on top of the first. You can also right-click the second tag in the tag view, or click *Find > Find Selected Tag With*, then select the first tag (or group of tags).

You can search for photos that don't have a particular tag by double-clicking a tag in the Find bar. Photos that don't 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 16.5 *Type-to-find Search*
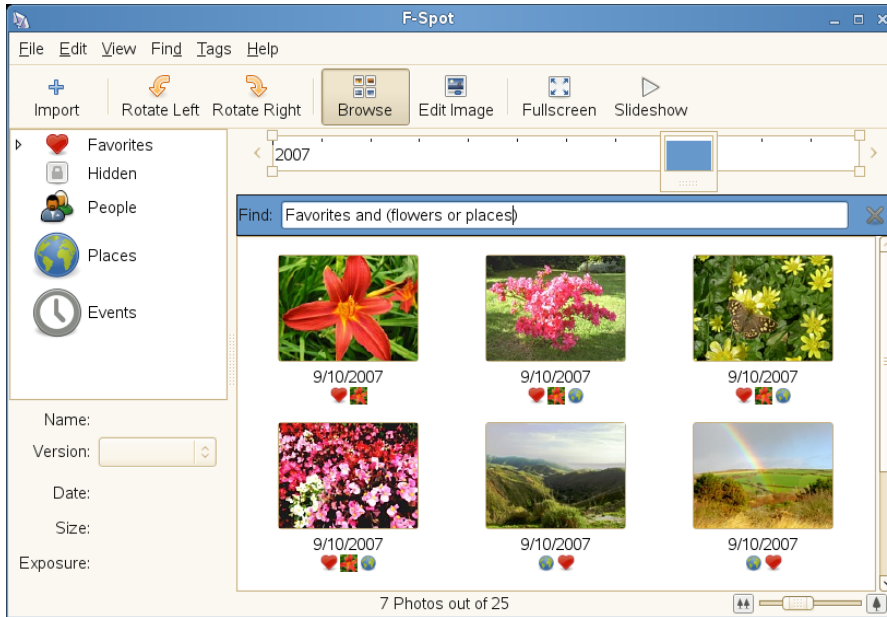
16.6 Exporting Image Collections

F-Spot offers a range of export functions for your photo collections:

- Section 16.6.1, "Generating a Website Gallery" (page 320)

- Section 16.6.2, "Exporting Photos to CD" (page 321)

- Section 16.6.3, "Exporting Photos to a Folder" (page 321)

- Section 16.6.4, "Posting to a Flickr, Picasa Web Album, SmugMug, or 23 Account" (page 322)

16.6.1 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.*
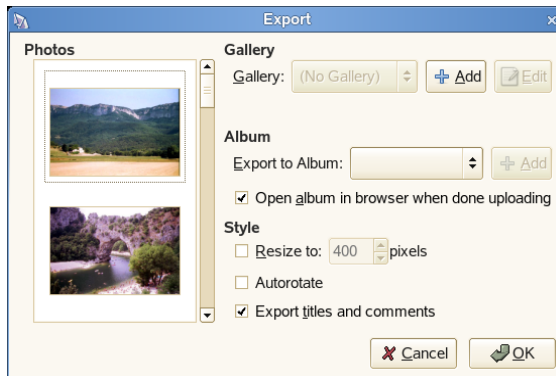
3 Select a gallery you want to export your images to, or click *Add* to add a new gallery.

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*.

16.6.2 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.
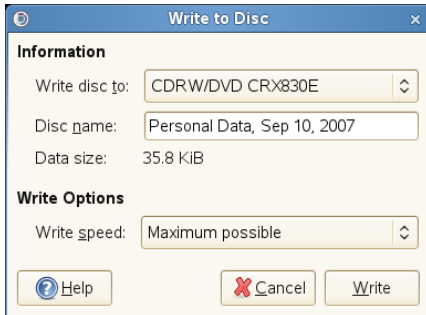
3 Assign a name to your image disk, then select the writing speed.

4 Click *Write* to start the CD writing process.

16.6.3 Exporting Photos to a Folder

1 Select the photos you want to export.

2 Click *File > Export > Export to Folder*.
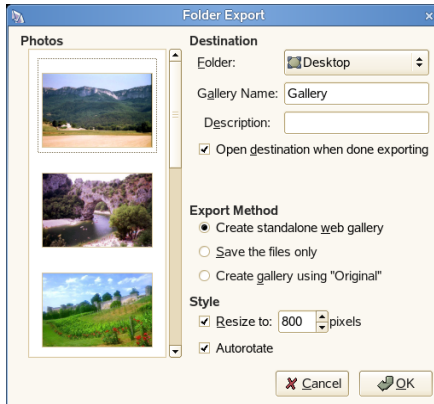
3 Choose from the following export methods:

Create standalone web gallery: Exports your photos to an interactive Website, 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*.

16.6.4 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*.

16.7 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.
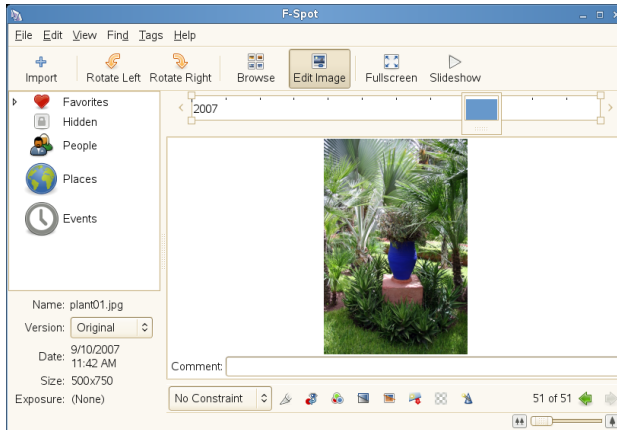
3 Choose from the following edit functions, using the toolbar below the photo or items on the *Edit* menu:

Function	Description
Adjust Colors	To adjust the brightness, contrast, and colors of a photo, click the *Adjust the photo colors* icon to open the adjustment dialog box. Change the settings you want, then click *OK*.
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 *Automatically adjust the colors* 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.

Function	Description
Convert to Sepia Tones	Converts the photo to sepia tones.
Crop	Cropping an image is a great way to improve the quality of a photograph by improving how it is framed. You crop a photo by selecting the part of the photo you want to keep. If you want your photo to be the exact dimensions necessary for a certain print size, you can constrain the kind of selection F-Spot will allow you to draw by choosing the appropriate size from the *Constraint* drop-down list. See the description of the Remove Red-Eye function for details on making a selection on your photo. After you make your crop selection, click the *Crop* icon beneath the photo to finalize the crop. If you are working with the original photo, cropping creates a new version of your photo.
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 photo. You should be able to correct both eyes on the same person at once, or even the eyes from multiple people at once. If this doesn't 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. 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.

Function	Description
	After you have selected a zone, remove the red by clicking the *Red-eye* icon beneath the photo.
Sharpen	Access this function by clicking *Edit > Sharpen*. Adjust the values for *Amount*, *Radius*, and *Threshold* to your needs, then click *OK*.
Soft Focus	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. Choose the central point of the area you want to be in focus, then click the *Soft Focus* icon beneath the photo. Adjust the amount of blurring, then click *Apply*.
Straighten	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 and automagically crops the resulted image so that you always see a perfect rectangle.

4 (Optional) If you want to edit another photo, use the arrow keys at the bottom right to switch to a new photo.

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 15, *Manipulating Graphics with The GIMP* (page 295).

16.8 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.

- Section 16.8.1, "E-mailing Photos" (page 327)

- Section 16.8.2, "Printing Photos" (page 328)

16.8.1 E-mailing Photos

You can e-mail your photos directly from F-Spot, sending them as-is (original size) or resizing them.

1 Select the photos you want to e-mail.
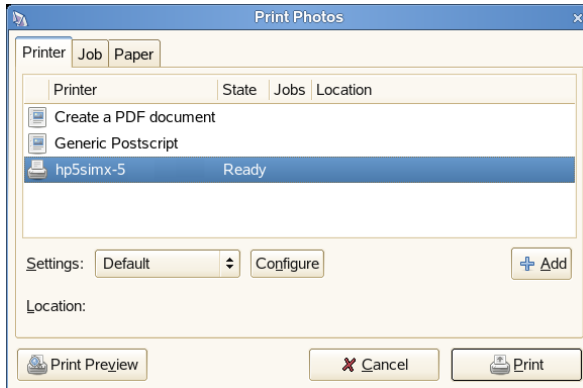
2 Click *File > Send Mail*.
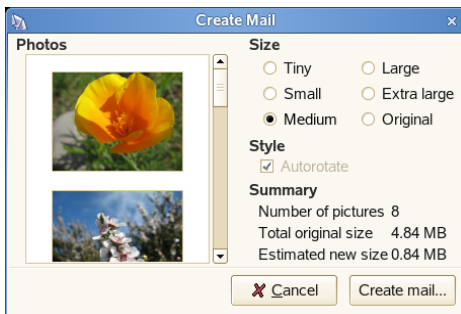
3 Select a size for your photos.

4 Click *Create mail*.

Your default e-mail program opens, with your photos attached to a new mail message.

16.8.2 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 Banshee

17

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. Banshee also supports streaming audio through its Internet Radio plug-in.

To open Banshee, click *Computer > Banshee Music Player*.

The first time you open Banshee, you are prompted to import music. Choose an import source, such as your home directory, a local folder, a local file, a CD, or an alternate music source (such as a digital audio player), then click *Import Music Source*.

Figure 17.1   *Import Music Library*

After successfully importing your music, your library is displayed.

Figure 17.2 *Banshee Library*
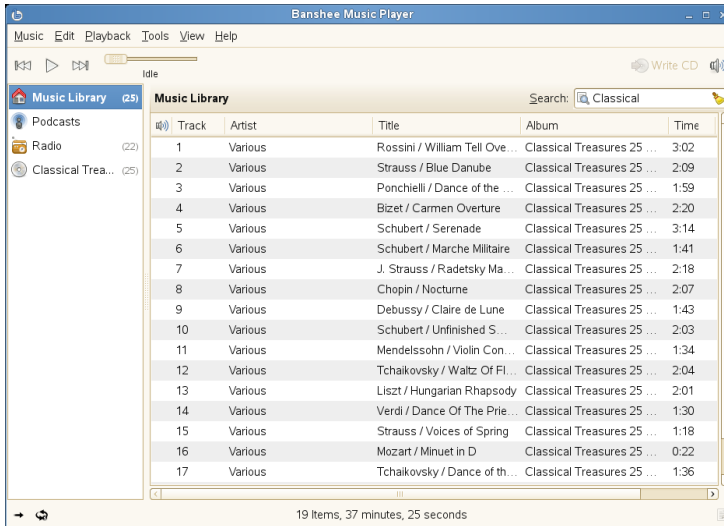
17.1 Listening to Music

To listen to music, 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, or your digital audio player (see Section 17.3, "Using Banshee with Your Digital Audio Player" (page 342) for more information).

Banshee also comes with MP3 support. If your music collection consists of both MP3 and Ogg Vorbis files, you do not need to convert any files to a different format. Just open Banshee and start listening.

If the format you are tying to play is not supported by the player's engine, Banshee offers to search for a suitable codec which you can then install with YaST.

- Section 17.1.1, "Importing Music" (page 331)

- Section 17.1.2, "Playing Your Music" (page 331)

17.1.1 Importing Music

Banshee can import music from a file, folder, CD, or digital audio player.

1 In Banshee, click *Music > Import Music*.

2 Select an import source.

3 Click *Import Music Source*.

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*.

17.1.2 Playing Your Music

To play a song, simply double-click the song in the library.

Use the buttons on the upper-left corner (⏮ ⏸ ⏭) to pause a song or play the next or previous song. Use 🔊 to adjust the volume. You can also use the items on the *Playback* menu to repeat or shuffle songs.

Banshee also has an integrated CD player. When you insert a music CD, your CD title appears in the left panel. Select the title, then click the Play button to play your full CD.

Notification Area Icon

You can keep Banshee hidden in the notification area when you're not interacting with it by minimizing the Banshee window. You will see a pop-up identifying the current song when a track changes.

If you don't want to see the pop-ups, click *Edit > Plugins > Notification Area Icon > Configuration*, then deselect *Show notifications when song changes*.
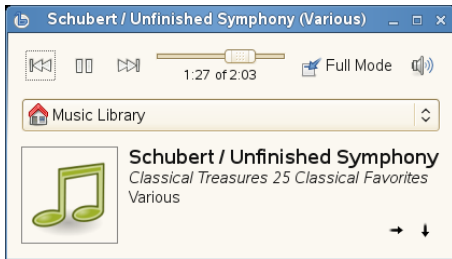
Figure 17.3   *Banshee Notification Area Pop-up*

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 17.4 *Banshee in Mini Mode*

Music Recommendations

Banshee automatically recommends music that it thinks you might like, based on the currently playing song. It finds artists and popular songs that others with similar musical tastes enjoy.

If you don't want to receive recommendations, click *Edit > Plugins*, then deselect *Music Recommendations*.

Figure 17.5 *Banshee Music Recommendations*
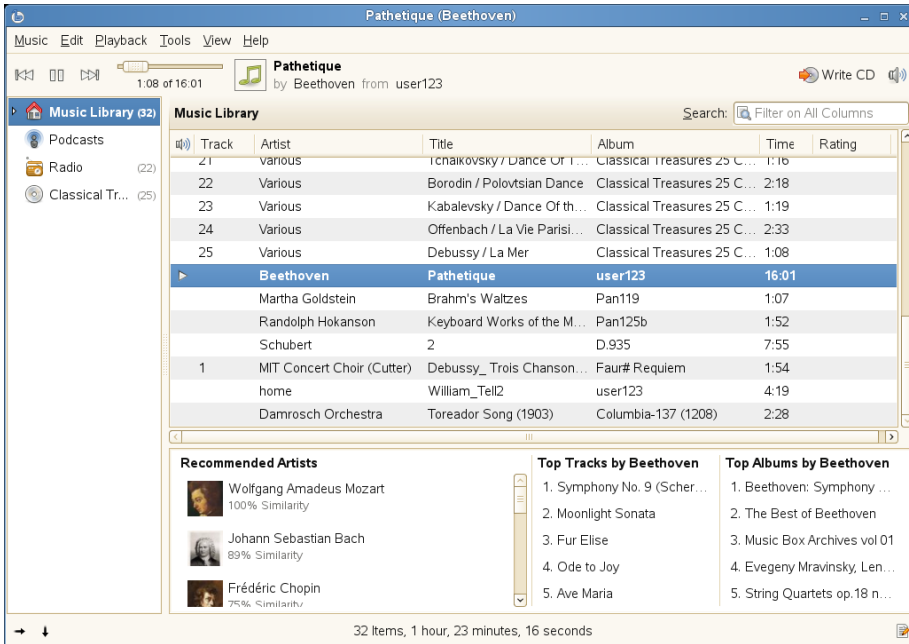
17.1.3 Ripping Your Music

To rip music from a CD and add it to your library:

1 Insert a CD into your CD or DVD drive.

Banshee automatically lists the CD as a source in the left menu.
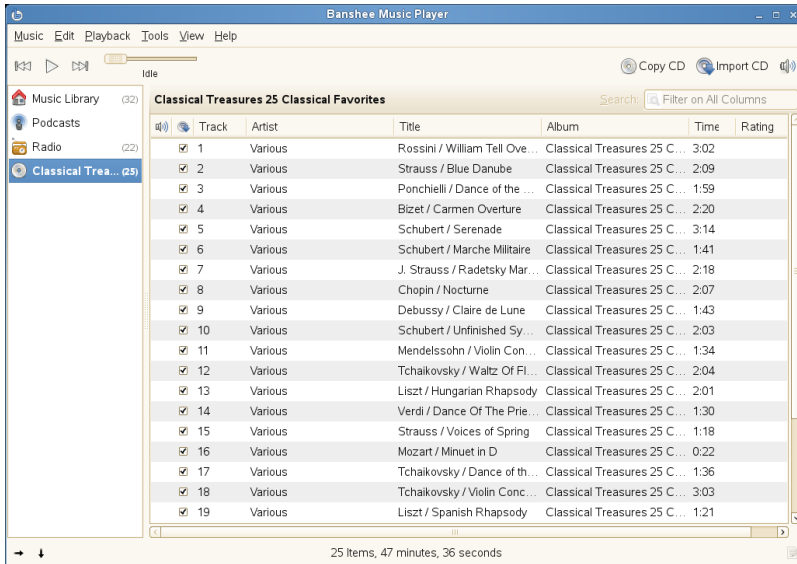
2 Select the CD title in the source list on the left, then click *Import CD* in the upper-right corner.

17.1.4 Listening to Internet Radio

You can use Banshee to listen to Internet radio stations and streaming audio. The Radio view in 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 17.6   *Internet Radio Stations in Banshee*
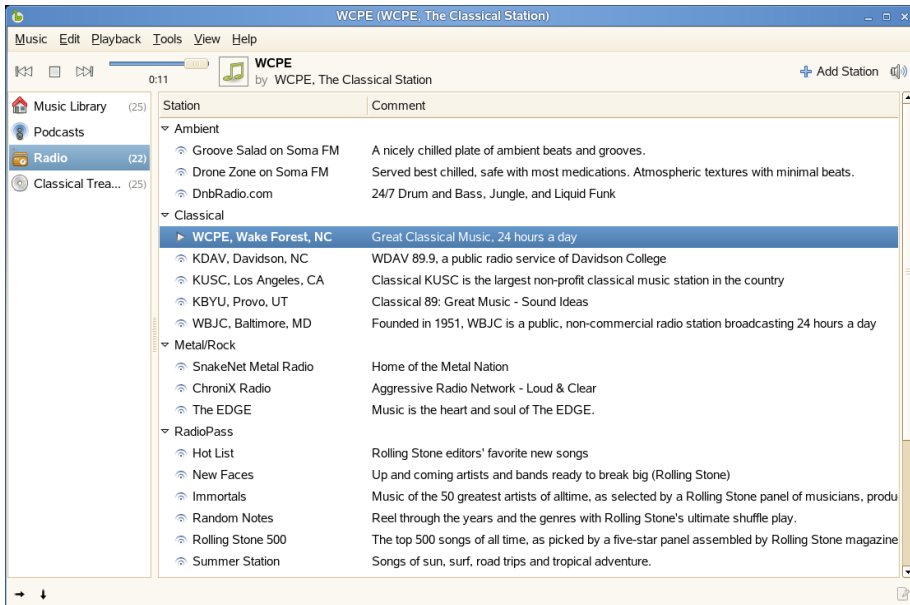
Adding a New Internet Radio Station

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.

17.1.5 Listening to Podcasts

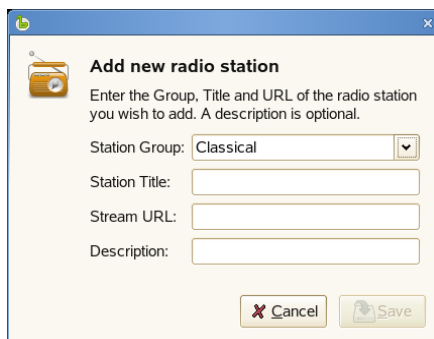Banshee lets you subscribe, download, and listen to your favorite Podcasts. Podcasting is a form of audio blogging where users subscribe to a feed of shows and the episodes are downloaded and managed for offline listening.

Subscribing to a Podcast

1 Click *Music > Subscribe to Podcast*.

2 Enter the URL of the podcast you want to subscribe to.

3 (Optional) Click *Advanced*, then specify what happens when new episodes of this podcast are available.

You can choose to download only the most recent episode, download all episodes, or decide which episodes you want to download when new episodes become available.
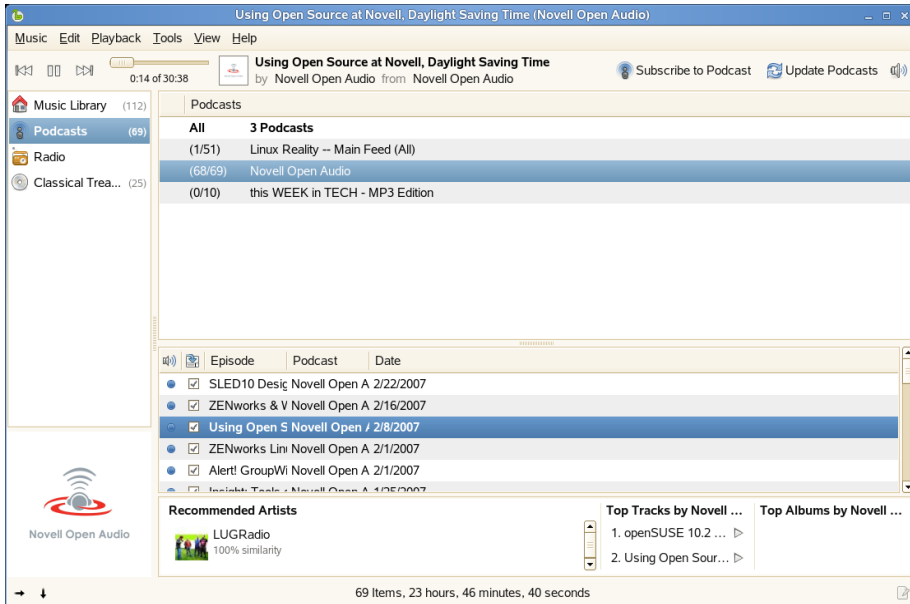
4 Click *Subscribe*.

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.

Use the options on the *Tools > Podcast* menu to update a podcast, subscribe to other podcasts, or find new podcasts.

Figure 17.7 *Podcasts in Banshee*

17.2 Managing Your Music Library

Banshee gives 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).

- Section 17.2.1, "Organizing Your Music" (page 338)

- Section 17.2.2, "Creating Smart Playlists" (page 340)

17.2.1 Organizing Your Music

To create a new playlist, click *Music > New Playlist* (or press Ctrl+N). A new playlist is displayed in the left panel. Right-click *New Playlist*, select *Rename Playlist*, then enter the name you want. You can drag and drop songs from one playlist to another, 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 17.8 *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.

Figure 17.9 *Editing Multiple Songs Dialog Box*

Click the *Details* tab to view detailed information about the selected song, including when a song was last played, when the song was imported, how long the song is, and how many times the song has been played.

Figure 17.10 *Details Dialog Box*
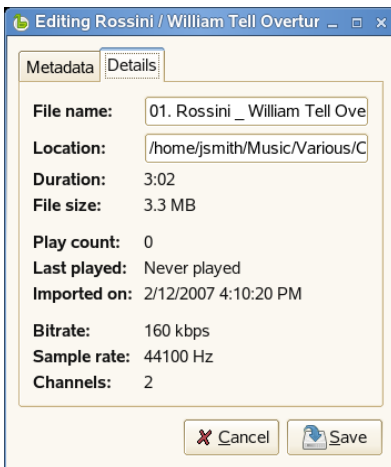
17.2.2 Creating Smart Playlists

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 haven't listened to for six months. Another smart playlist can contain all songs published in 2006 that you have labeled with the Classical genre.

Banshee automatically updates all smart playlists when a change is made to your music library. If you import new songs, Banshee checks to see if they match any of your available smart playlists. When applicable, 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 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.
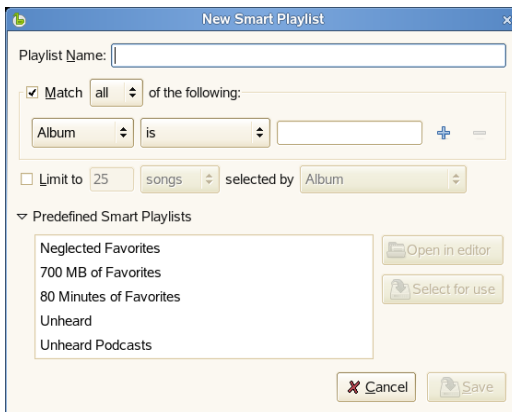
3 Click *Save.*

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, Banshee can create a smart playlist in which all songs by that artist are selected.

1 In 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. 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.

17.3 Using Banshee with Your Digital Audio Player

Banshee supports several digital audio players, including Apple* iPods, Creative* Nomads*, Dell* DJs, and almost any other generic USB Mass Storage player. Instead of having to use separate applications to get support for your audio devices, 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.

17.3.1 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 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 17.11 *Banshee MP3 Playback from an iPod Mini*
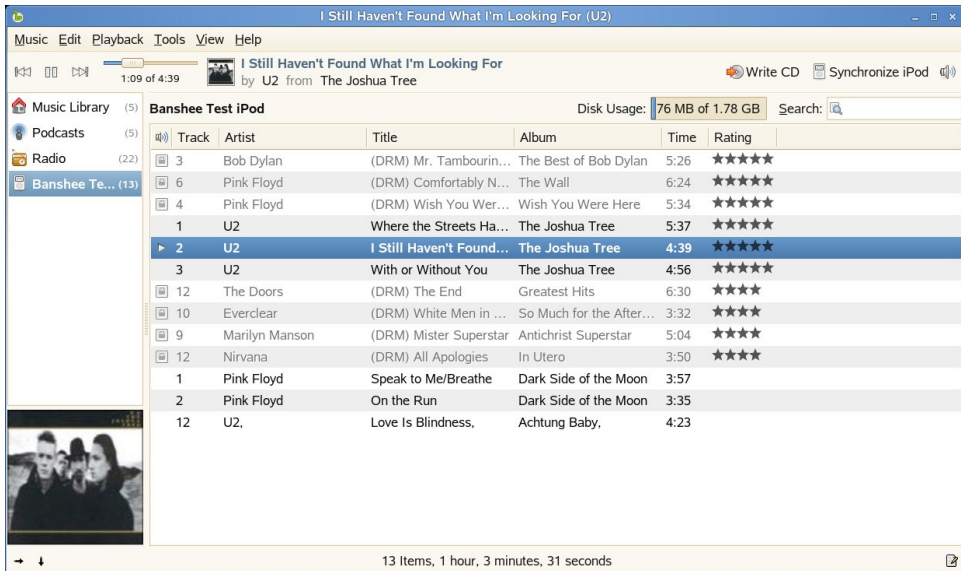
To view or change device properties, right-click your device, then select *Source Properties*. From there, you can view various pieces of information. If you have an iPod, you can update the owner's name.

17.3.2 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.

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)*.

17.3.3 Copying Music on Your Digital Audio Player to Banshee

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 of the music on your digital audio player by right- clicking your player in the source list and selecting *Import*.

Figure 17.12 *Importing Music from Your Digital Audio Player to Banshee*
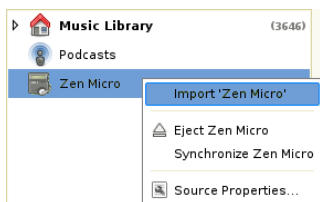
17.3.4 Synchronizing Your Library

To keep your digital audio player up to date with your Banshee Library, select your player in the source list, then click *Synchronize* in the upper-right corner.

Banshee also synchronizes your ratings and cover art in your tracks to your iPod.

17.4 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 Banshee.

3 Specify the disk options you want, then click *Write*.

   For example, click *Eject disk after writing* if you want Banshee to eject your CD when the writing is completed.
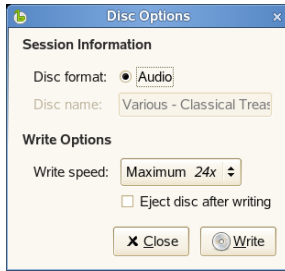
You can track the status of the burn in the bottom-left corner of Banshee. A message box appears when the burn is complete.

4 Click *OK*.

17.5 Sharing Your Music

You can automatically update your online Audioscrobbler [`http://www.last.fm`] profile with the music you listen to in 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.

1 In Banshee, click *Tools > Audioscrobbler > Configure*.

2 If you have already registered with Last.fm [http://www.last.fm/], click *Enable song reporting*, then 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*, then specify your Last.fm username and password.

3 Click *Close*.

Banshee starts reporting with the next song you play.

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.

17.6 Configuring Banshee Preferences

1 Click *Edit > Preferences*.
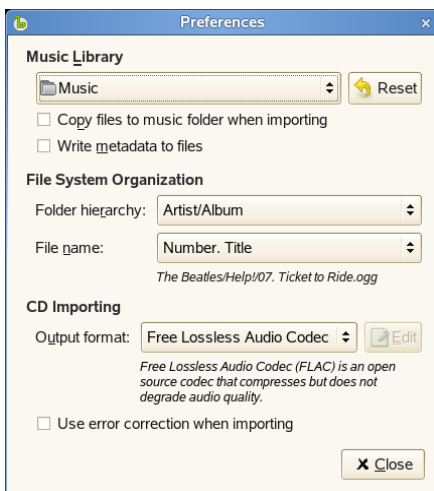
2 Choose from the following options:

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 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: 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.

18 Playing Movie Files

The Totem Movie Player application is a movie player for the GNOME desktop which provides the following features:

- Support for a variety of video and audio files

- A variety of zoom levels and aspect ratios, and a full screen view

- Seek and volume controls

- Playlists

- Complete keyboard navigation
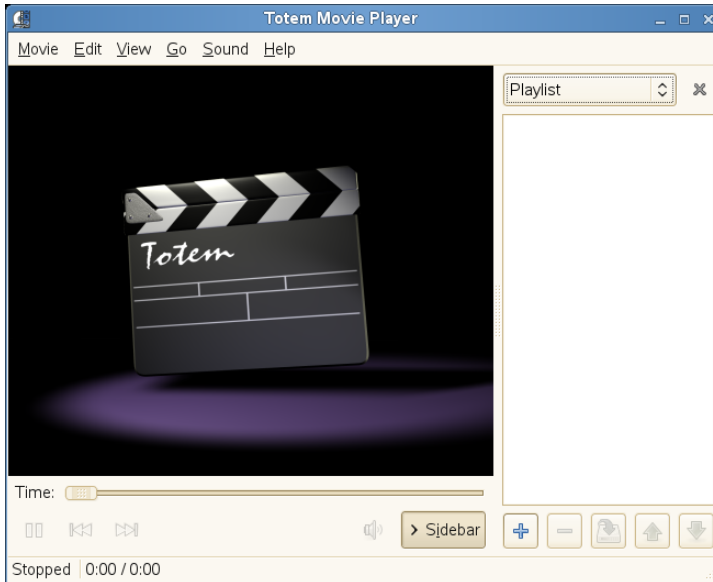
- Video thumbnailer for GNOME

- Nautilus properties tab

To start the Totem Movie Player, click *Computer > More Applications > Multimedia > Totem Movie Player*.

18.1 Using the Totem Movie Player

When you start Totem Movie Player, the following window is displayed.

Figure 18.1 *Totem Movie Player Start Up Window*

18.1.1 Opening a Video or Audio File

1 Click *Movie > Open*.

2 Select the files you want to open, then click *Add*

You can also drag a file from another application (such as a file manager) to the Totem Movie Player window. The Totem Movie Player application opens the file and plays the movie or song. Totem Movie Player displays the title of the movie or song beneath the display area and in the titlebar of the window.

If you try to open a file format that Totem Movie Player does not recognize, the application displays an error message.

You can double-click a video or audio file in the Nautilus file manager to open it on the Totem Movie Player window.

18.1.2 Opening a Video or Audio File By URI Location

1 Click *Movie > Open Location*.

2 Specify the URI location of the file you want to open, then click *Open*.

18.1.3 Playing a DVD, VCD, or CD

To play a DVD, VCD, or CD, insert the disc in the optical device of your computer, then click *Movie > Play Disc*.

To eject a DVD, VCD, or CD, click *Movie > Eject*.

To pause a movie or song that is playing, click the ▫ button, or click *Movie > Play/Pause*. When you pause a movie or song, the statusbar displays *Paused* and the time elapsed on the current movie or song stops.

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

To view properties of a movie or song, click *View > Sidebar* to make the sidebar appear, then click *Properties* in the drop-down list. The dialog contains the title, artist, year, and duration of movie or song, video dimensions, codec and framerate, and the audio bitrate and codec.

18.1.4 Seeking Through Movies or Songs

To seek through movies or songs, use any of the following methods:

To skip forward
> To skip forward a movie or song, click *Go > Skip Forward*.

To skip backward
> To skip backward a movie or song, click *Go > Skip Backward*.

To move to next movie or song
> To move to the next movie or song, click *Go > Next Chapter/Movie,* or click the
>
> ⬐ button.

To move to previous movie or song
> To move to the previous movie or song, click *Go > Previous Chapter/Movie*, or
>
> click the ⬐ button.

18.1.5 Changing the Zoom Factor

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

To zoom to full screen mode
> Click *View > Fullscreen*. To exit fullscreen mode, click the Leave Fullscreen button or press Esc.

To zoom to half size (50%) of the original movie or visualization
> Click *View > Fit Window to Movie > Resize 1:2*.

To zoom to size (100%) of the original movie or visualization
Click *View > Fit Window to Movie > Resize 1:1*.

To zoom to double size (200%) of the original movie or visualization
Click *View > Fit Window to Movie > Resize 2:1*.

To switch between different aspect ratios, click *View > Aspect Ratio*. The supported aspect ratios include:

- Auto

- Square

- 4:3 (TV)

- 16:9 (Widescreen)

- 2.11:1 (DVB)

The default aspect ratio is *Auto*.

18.1.6 Showing or Hiding Controls

To hide the Totem Movie Player window controls, click *View > Show Controls* to deselect the Show Controls option. To show the controls on the Totem Movie Player window, right-click the window, then select *Show Controls*.If the Show Controls option is selected, Totem Movie Player shows the menubar, time elapsed slider, seek control buttons, volume slider, and statusbar on the window. If the Show Controls option is not selected, the application hides these controls and shows only display area.

18.1.7 Managing Playlists

To show the playlist, click *View > Sidebar*, then click *Playlist* at the top of the sidebar. The Playlist dialog box is displayed.

You can use the Playlist dialog box to do the following:

- **To add a track or movie:** Click the *Add* button. Select the file you want to add to the playlist, then click *OK*

- **To remove a track or movie:** Select the filenames from the filename list box, then click *Remove*.

- **To save a playlist to file:** Click the *Save* button, then specify a filename

- **To move a track or movie up the playlist:** Select the filename from the filename list box, then click the *Up* button.

- **To move a track or movie down the playlist:** Select the filename from the filename list box, then click the *Down* button

To hide the playlist, click *View > Sidebar*, or click the Sidebar button.

To enable or disable repeat mode, click *Edit > Repeat Mode*. To enable or disable shuffle mode, click *Edit > Shuffle Mode*.

18.1.8 Choosing Subtitles

To choose the language of the subtitles, click *View > Subtitles*, then select the subtitles language you want to display.

To disable the display of subtitles, click *View > Subtitles > None*.

By default, Totem Movie Player chooses the same language for the subtitles that you use on your computer.

Totem Movie Player automatically loads and displays subtitles if the file that contains them has the same name as the video file and has an `asc`, `txt`, `sub`, `smi`, or `ssa` file extension.

18.1.9 Taking Screenshots

To take a screenshot of a movie or a visualization of song that is playing, click *Edit > Take Screenshot*. You can save a screenshot to either of the following:

- **File:** Select *Save screenshot to file*, then click the *Browse* button to specify a filename.

- **Desktop:** Select *Save screenshot to the desktop*.

18.2 Modifying Totem Movie Player Preferences

To modify Totem Movie Player preferences, click *Edit > Preference*s. You can modify the following:

18.2.1 General Preferences

The Totem General Preferences let you select a network connection speed, specify a TV-out connection type, and change the font and encoding used to display subtitles.

Figure 18.2   *Totem General Preferences*
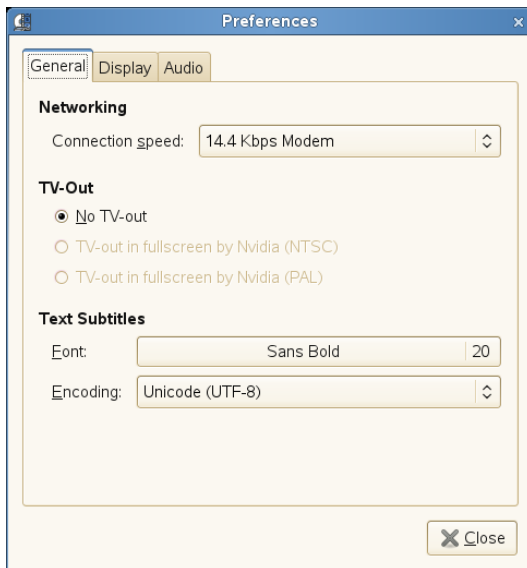
General Preferences include the following:

Networking
> Select network connection speed from the Connection speed drop-down list box.

TV-Out
> Select *No TV-out* if you have no TV-out connection (this option is selected by default if you don't have a TV-out interface). Select *TV-out in fullscreen by Nvidia (NTSC)* if you want TV-out connection in NTSC, or select *TV-out in fullscreen by Nvidia (PAL)* if you want TV-out connection in PAL.

Text Subtitles
> Lets you change the font and encoding used to display subtitles.

18.2.2 Display Preferences

The Totem Display Preferences let you choose to automatically resize the window when a new video is loaded, change the color balance, and configure visual effects when an audio file is played.

Figure 18.3   *Totem Display Preferences*
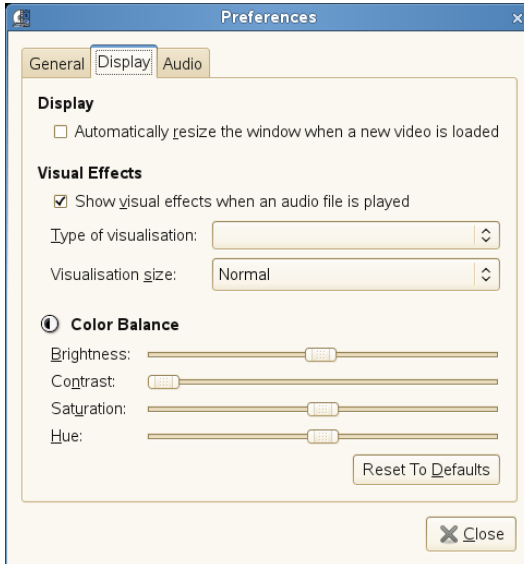
Display Preferences include the following:

Automatically resize the window when a new video is loaded
> Select this option if you want Totem Movie Player to automatically resize the window when a new video is loaded.

Visual Effects
> You can choose to show visual effects when an audio file is playing, select the type of visualization you want to show, and the visualization size.

Color Balance
> Specify the level of color brightness, contrast, saturation, and hue.

18.2.3 Audio Preferences

The Totem Audio Preferences dialog box lets you select the audio output type.

Figure 18.4   *Totem Audio Preferences*
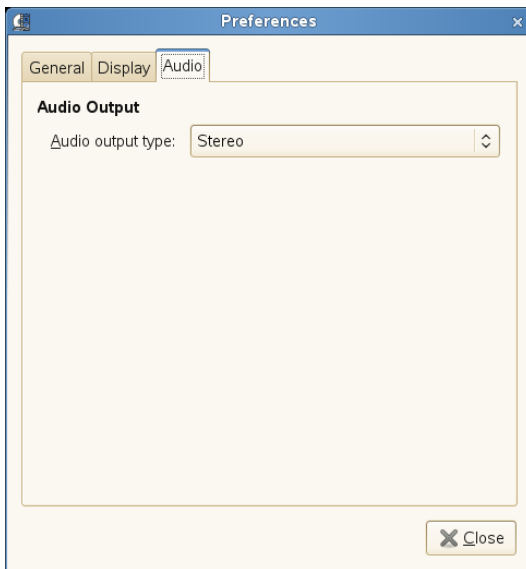
Burning CDs and DVDs

19

The GNOME desktop provides the following applications for writing data and audio CDs and DVDs:

- Section 19.1, "GNOME CD/DVD Creator " (page 359)

- Section 19.2, "Brasero" (page 360)

19.1 GNOME CD/DVD Creator

You can use the Nautilus file manager to burn CDs and DVDs. To burn a CD or DVD:

1 Click *Computer > More Applications > Multimedia > 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.
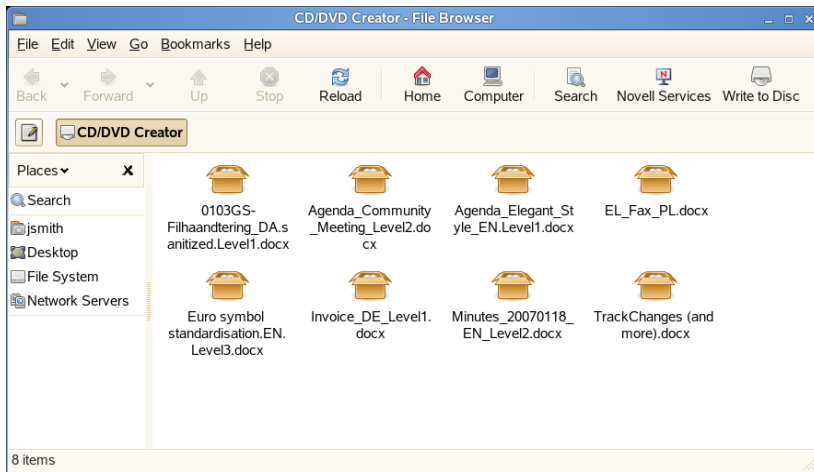
3 Click *Write to Disc*.

4 Modify information in the Write to Disc dialog or accept the defaults, then click *Write*.

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

You can use the Banshee music player to burn audio and MP3 CDs, as explained in

19.2 Brasero

Brasero is a application for the GNOME desktop that lets you burn CDs and DVDs.

Figure 19.1 *Brasero Disc Burning Application*
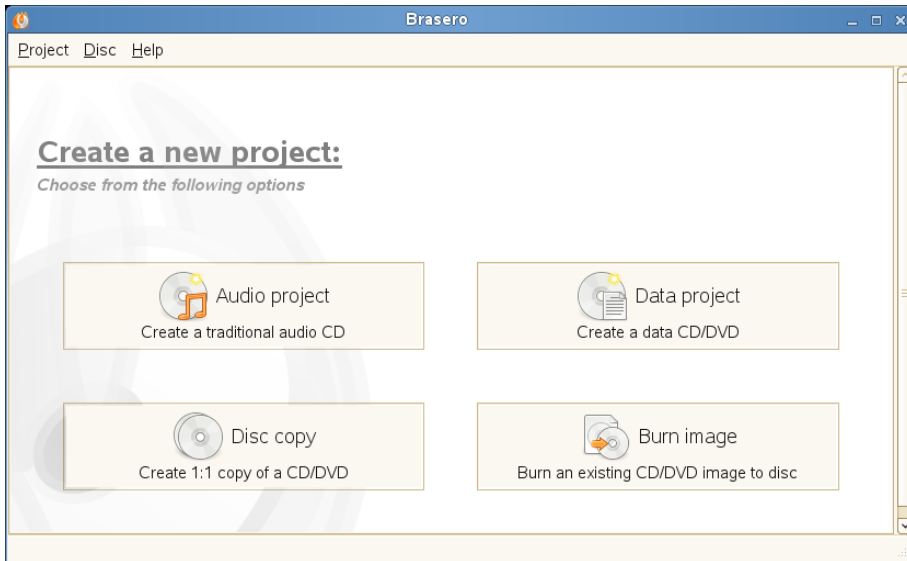
Brasero includes the following features:

- Ability to edit disc contents (remove, move, or rename files inside directories)

- Ability to burn or copy data or audio CDs or DVDs on the fly

- Automatic filtering for unwanted files (for example, hidden files, broken/recursive symlinks, and files not conforming to joliet standard)

- Multisession support

- Joliet extension support

- Ability to write or copy a CD/DVD image to the hard drive

- Ability to check disc file integrity

- Ability to edit CD-TEXT information

- Ability to search for audio files inside dropped folders

- Support for single-session data DVDs

- Support for any kind of CD

- Ability to erase CDs and DVDs

- Ability to save/load projects

- Ability to burn CD/DVD images and cue files

- Song, image, and video previewer

- Nautilus integrations (drag and drop/cut and paste)

- Ability to use files on a network

- Ability to search for files based on keywords or file type

- Ability to display a playlist and its contents (playlists are automatically searched through Beagle)

- All disc IO is done asynchronously to prevent the application from blocking

To start Brasero, click *Computer > More Applications > Multimedia > Brasero Disc Burning Application*.

The following sections give you a brief overview on using Brasero:

19.2.1 Creating a Data CD or DVD

1 In the main Brasero window, click *Data project*

The *New data disc project* dialog box opens.

2 To add files to the project, do any of the following:

- Select the files you want to add in the selection pane on the right, then click the *Add* button.

- Drag files to the area on the left from the selection pane or from your file manager.

- Double-click the files you want to add in the selection pane.

- Copy the files you want to add (for example, from your file manager), then paste the files in the area on the left.

3 To remove files from the project, do any of the following:

- Select the files you want to remove, then click the *Remove* button (or press the Delete key).

- Drag files from the area on the left.

4 Click *Burn* to open the *Disc burning setup* dialog box.

5 Specify a drive to write to.

Click *Properties* to select the burning speed and other preferences (such as whether or not the disc is ejected after burning is complete).

6 (Optional) To create a multisession CD or DVD, select *Leave the disc open to add other files later*.

Multisession discs can be used to write data in more than one burning session. This is useful, for example, for writing backups that are smaller than the media. In each session, you can add another file. As long as the disc contains enough space, you can append as many sessions as you like. You can even add audio files to data discs.

7 (Optional) Select *Check data integrity* to verify the integrity of the written data by comparing the MD5 sums of the original data and the burned data.

8 Click *Burn*.

19.2.2 Creating an Audio CD or DVD

1 In the main Brasero window, click *Audio project*

The *New audio disc project* dialog box opens.

2 To add files to the project, do any of the following:

- Select the files you want to add in the selection pane on the right, then click the *Add* button.

- Drag files to the area on the left from the selection pane or from your file manager.

- Double-click the files you want to add in the selection pane.

- Copy the files you want to add (for example, from your file manager), then paste the files in the area on the left.

3 To remove files from the project, do any of the following:

- Select the files you want to remove, then click the *Remove* button (or press the Delete key).

- Drag files from the area on the left.

4 Click *Burn* to open the *Disc burning setup* dialog box.

5 Specify a drive to write to.

Click *Properties* to select the burning speed and other preferences (such as whether or not the disc is ejected after burning is complete).

6 (Optional) To create a multisession CD or DVD, select *Leave the disc open to add other files later*.

Multisession discs can be used to add files in more than one burning session. As long as the disc contains enough space, you can append as many sessions as you like.

7 Click *Burn*.

19.2.3 Copying a CD or DVD

1 In the main Brasero window, click *Disc copy*.

The *CD/DVD copy options* dialog box opens.
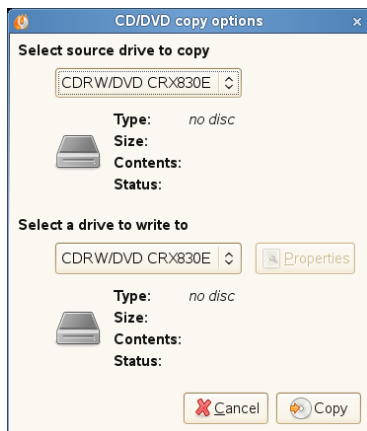
2 Specify the source drive you want to copy.

3 Specify a drive to write to.

To copy the disc to the file system, select *File image* from the *Select a drive to write to* drop-down list, then click *Properties* to specify a location and image type.

4 Click *Copy*.

19.2.4 Burning an Existing CD/DVD Image to Disc

1 In the main Brasero window, click *Burn image*.

The *Image burning setup* dialog box opens.
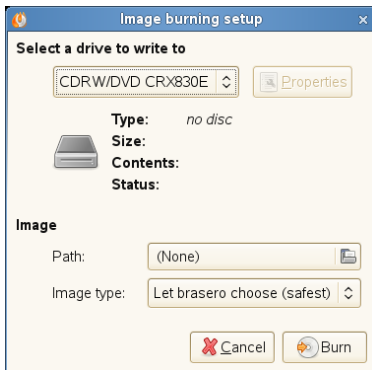
2 Specify a drive to write to.

Click *Properties* to select the burning speed and other preferences (such as whether or not the disc is ejected after burning is complete).

3 Specify the location of the image you want to burn, and the image type.

4 Click *Burn*.

19.2.5 Erasing a CD or DVD

1 In the main Brasero window, click *Disc > Erase*.

The *Disc blanking* dialog box opens.
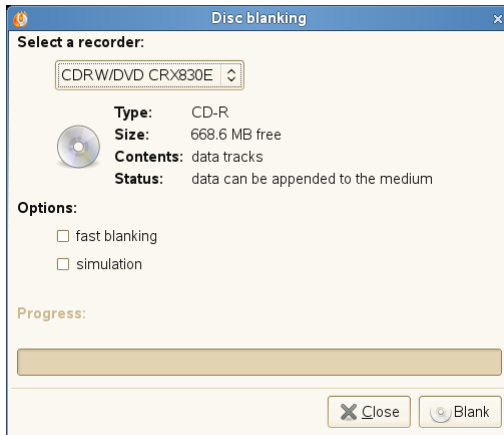
2 Specify the drive containing the disc you want to erase.

3 Select any other options you want.

4 Click *Blank*.

Moving from Windows to Linux

A

If you are coming from Microsoft Windows, take a look at how familiar elements of Windows translate to openSUSE®. 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 A.1   *GNOME Desktop*

A.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. The function-oriented menu structure makes it easy to find the right application for your purpose even if you do not know the application names yet. Find more information about the main menu in Section 1.4, "Using the Main Menu" (page 14).

Figure A.2   *Main Menu in GNOME*
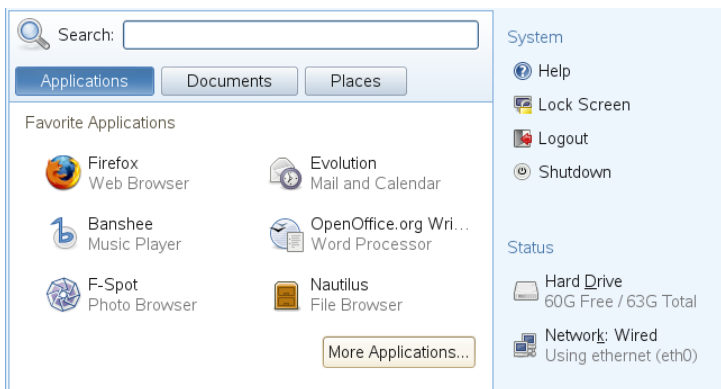
Alternatively, you can also start programs from the command line. Click *Computer > More Applications > System > Gnome Terminal* to open a dialog where you can enter a command to start the application. The name of the command is often (but not always) the application name written in lowercase.

A.2 Managing Files

To start the File Manager, click your home folder icon on the desktop.

Figure A.3   *File Manager*
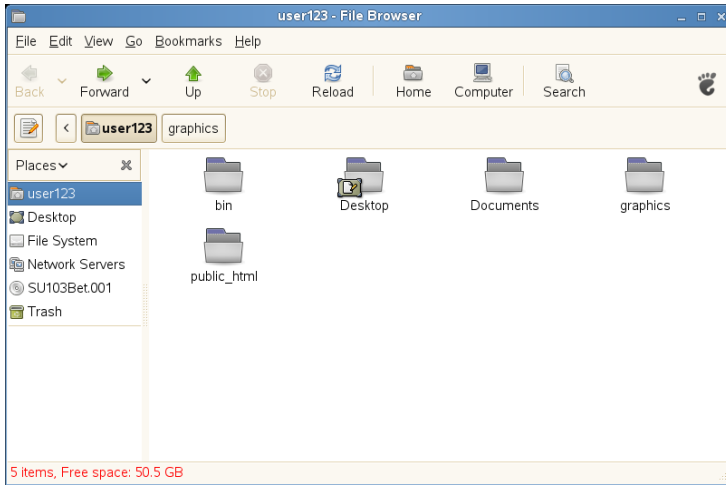
For more information about the File Manager, see

A.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*.

Figure A.4   *Windows Command Prompt and Terminal*
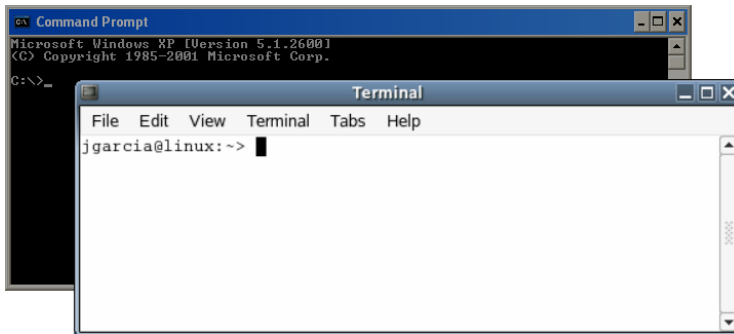
A.4 Customizing Your Desktop

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 A.5   *GNOME Control Center*
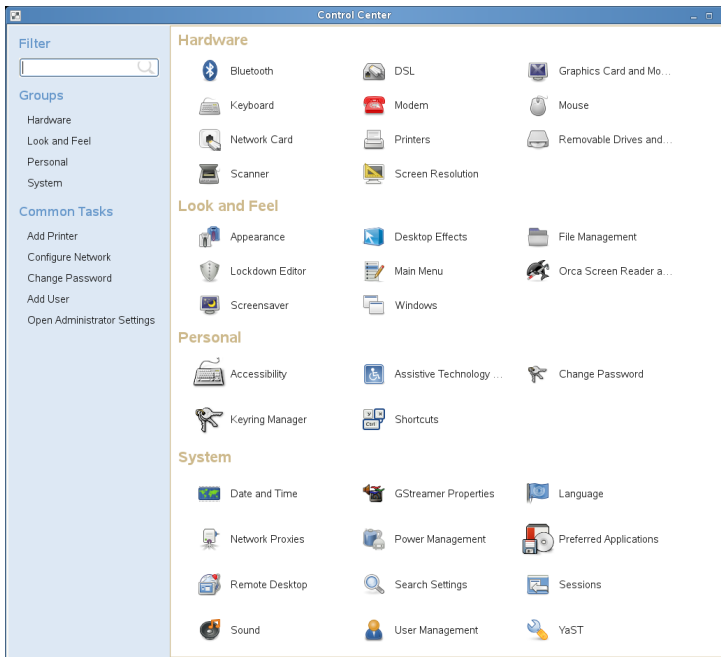
For more information, see Chapter 2, *Customizing Your Settings* (page 59).

A.5 Switching between Applications

Similar to the taskbar on Windows, the bottom panel in GNOME lets you easily switch between open windows. Unlike Windows, GNOME lets you set up multiple desktops where each one can run different programs. Switch between them with a single click.

A.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. openSUSE offers various different ways of accessing and creating network-shared resources. Given that the network structure and the configuration of your computer allow for it, you can easily browse your network for shared resources and services with the file manager.

Figure A.6   *GNOME Network Browsing*
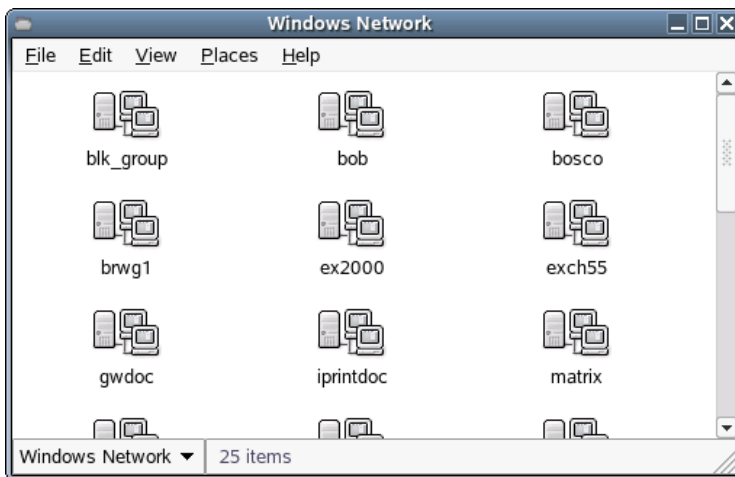
To learn more about the various possibilities of accessing network resources, refer to Section 1.6, "Accessing Network Resources" (page 23).

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