SUSE Linux Enterprise Desktop

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KDE User Guide

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About This Guide

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

The manual is subdivided into the following parts:

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

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

Internet
> Find out how to use the Internet applications included in your SUSE Linux Enterprise Desktop, such as Konqueror or the Firefox Web browser, a download manager, or a news feed reader.

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

1 Feedback

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

2 Additional Documentation

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

Installation Quick Start
> Lists the system requirements and guides you step-by-step through the installation of your SUSE Linux Enterprise Desktop.

GNOME User Guide
> This manual introduces the GNOME desktop of your SUSE Linux Enterprise Desktop 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.

For an overview of all manuals shipped with SUSE Linux Enterprise Desktop, refer to http://www.novell.com/documentation/sled10/, where you can also download the manuals. You can also access the information online in the Help Center of your desktop.

3 Documentation Conventions

The following typographical conventions are used in this manual:

- `/etc/passwd`: filenames and directory names

- *`placeholder`*: replace *`placeholder`* with the actual value

- `PATH`: the environment variable PATH

- `ls`, `--help`: commands, options, and parameters

- `user`: users or groups

- Alt , Alt + F1 : a key to press or a key combination; keys are shown in uppercase as on a keyboard

- *File*, *File* → *Save As*: menu items, buttons

- *Dancing Penguins* (Chapter Penguins, ↑*Reference*): This is a reference to a chapter in another book.

Part I. KDE Desktop

Getting Started with the KDE Desktop

1

This chapter assists you in becoming familiar with the KDE desktop of your SUSE® Linux Enterprise Desktop. If you have not yet installed your system, see *Installation Quick Start* at `http://www.novell.com/documentation/sled10/`.

KDE stands for *K Desktop Environment* and is a graphical user interface that has many applications designed to help you in your daily work. KDE also offers many choices to modify your desktop according to your needs and wishes. Read more about configuring your desktop in Chapter 2, *Customizing Your Settings* (page 61).

The following description is based on the default configuration of the KDE desktop shipped with your product. If you or your system administrator has modified the defaults, some aspects may 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, all users must authenticate. When you start your system, you are prompted to enter your username and password. This is the username and password you created when you installed your system. If you did not install your system, check with your system administrator for your username and password.

NOTE: Auto Login

If your computer is not run in a networking environment and you are the only person using it, you can automatically log in to the desktop environment on boot. In this case, you do not see any login screen. This feature, called *auto login*, can be enabled or disabled during installation or at any time using the YaST user management module.

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

As shown in Figure 1.1, "A KDM Login Screen" (page 16), the default KDM login screen provides input fields for username and password and two menu items. To start a normal login, just enter your username and password.

Figure 1.1   *A KDM Login Screen*
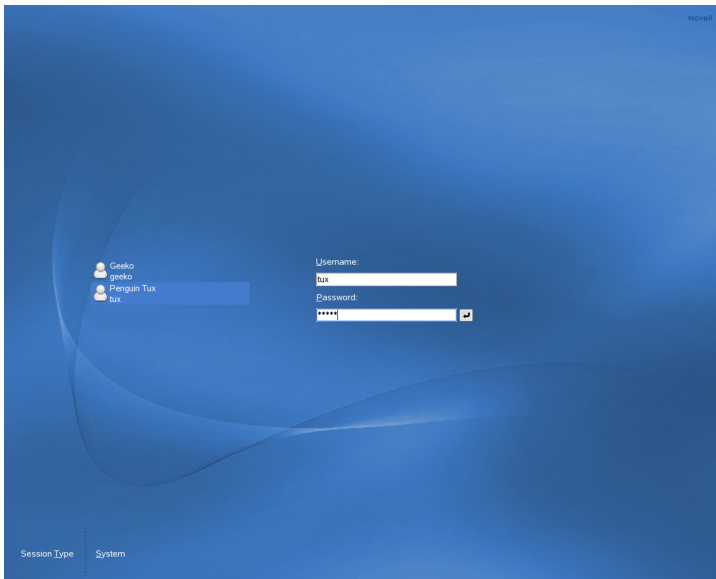
The KDM login screen has input fields for username and password and the following menu items:

Session Type

> Specifies the desktop to run when you log in. If desktops other than KDE are installed, they appear in the list. Make changes only if you want to use a session type other than your default (usually KDE). Future sessions are automatically of the same type unless you change the session type manually.

System

> Performs a system action, such as shutting down the computer or starting different login actions. *Remote Login* enables you to log in on a remote machine.

NOTE: Connecting to an Active Directory Server

To access shared network resources, you can also authenticate a KDE client machine against an Active Directory server. For further details, refer to Chapter 9, *Accessing Network Resources* (page 167). If your machine is configured for this kind of authentication, the login screen also provides an additional field. In this case, proceed as follows during login:

1. Select the domain from the list.

2. Enter your Windows username.

3. Enter your Windows password and press Enter .

1.1.1 Controlling a Session

The Session Manager starts after your username and password are authenticated by the login process. 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 status 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 OpenOffice.org.

IMPORTANT: Saving and Restoring Applications

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 about configuring session preferences, see Section 2.2.4, "KDE Components" (page 70).

1.1.2 Switching Desktops

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

1 If you are logged in to KDE, select *Log Out → End Current Session* from the main menu. On the login screen, click *Session Type*.

2 Select the GNOME desktop.

3 Enter your username.

4 Enter your password. The GNOME desktop is started.

See *GNOME User Guide* http://www.novell.com/documentation/sled10/ for more information about using the GNOME desktop.

5 To switch back to KDE again, click *Desktop → Log Out* on the panel of the GNOME desktop then click *OK*. The session is closed and the login screen reappears.

6 Before logging in again, click *Session Type* and select *KDE* in the login screen. If you do not select a new session type, your next session will be of the same type (GNOME) as the session before.

1.1.3 Locking Your Screen

To lock the screen, do either of the following:

- From the main menu, select *Lock Session*.

- Use the keyboard shortcut defined in the KDE Control Center. Usually, this is `Ctrl` + `Alt` + `L`.

TIP: Looking Up KDE Keyboard Shortcuts

If you want to look up the keyboard shortcuts defined in KDE, select *Personal Settings → Regional & Accessibility → Keyboard Shortcuts* from the main menu. See also Section 2.2.6, "Regional & Accessibility" (page 72).

For quick access, you can also add the *Lock* and *Logout* icons to the panel. To do so, right-click the panel then click *Add Applet to Panel*. In the following window, select *Lock/Logout Buttons* and click *Add to Panel*.

When you lock your screen, the screensaver starts. To unlock the screen, move your mouse to display the locked screen dialog. Enter your username and password then press `Enter`.

For information about configuring your screensaver, see Section 2.2.1, "Appearance & Themes" (page 65).

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 the computer, making the next system start much faster than a complete boot.

To log out and leave the system running, do one of the following:

- From the main menu, select *Log Out → End Current Session*.

- Use the keyboard shortcut that is defined in the KDE Control Center, described in Section 2.2.6, "Regional & Accessibility" (page 72). Usually, to log out with confirmation, this is `Ctrl` + `Alt` + `Del`. In the following dialog you still have the choice to cancel the logout process. If you want to log out without any confirmation, press `Ctrl` + `Alt` + `Shift` + `Del`.

- Click the *Logout* icon in the panel. If your panel does not include the logout icon, you can add it to the panel as described in Section 1.1.3, "Locking Your Screen" (page 18).

1.3 Desktop Components

The graphical desktop environment should not pose any problems for former Windows or Macintosh users. The main components of the desktop are the icons on the desktop and the panel at the bottom of the screen.

Figure 1.2   *An Example KDE Desktop*
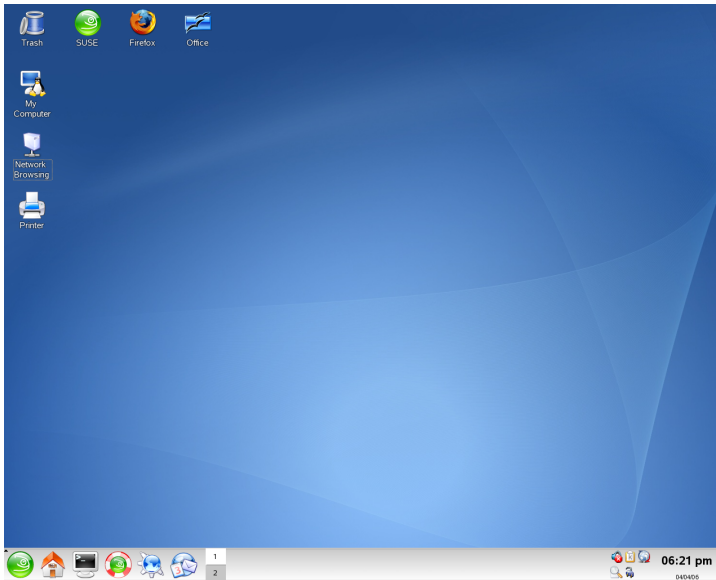
Desktop icons represent files, directories, applications, functions, and removable media, like CDs or DVDs.

The desktop has the following icons by default:

Trash
> Contains files and folders that have been deleted. For information about using the trash bin, see Section 1.3.4, "Managing the Trash Bin" (page 29).

My Computer

Displays information about hardware, network status, operating system, hard disks, common folders, and removable devices. For more information, refer to Section 1.3.3, "Accessing Removable Media" (page 26).

Network Browsing

Displays network services you can access. Some of the services might require authentication. To learn more, refer to Chapter 9, *Accessing Network Resources* (page 167).

Printer

Opens KJobViewer that displays print jobs you have sent to printers. See Section 12.4, "Starting Print Jobs in KDE" (page 202) for more information.

Firefox

Opens the Firefox Web browser. For more information, refer to Chapter 14, *Browsing with Firefox* (page 217).

Office

Opens a new OpenOffice.org document. For an introduction to this office suite, refer to Chapter 3, *The OpenOffice.org Office Suite* (page 77).

The panel (in KDE also called "Kicker") is a bar, typically located at the top or the bottom of the screen. It is designed to provide information about running applications or the system and easy access to some important functions or applications. If you hold your pointer over an icon, a short description is displayed.

Figure 1.3 *KDE Panel (Kicker)*

The panel typically consists of the following areas:

Main Menu Icon

By default, the left end of the panel has an icon that opens the main menu, similar to the *start button* on the MS Windows desktop. The main menu has a well-ordered structure for accessing the main applications. It also contains menu items for major functions like logging out or searching for applications. For more information, see Section 1.3.1, "Accessing the Main Menu" (page 22).

Quick Launcher

Next to the main menu icon, find the quick launcher. It holds some icons for the most important functions or applications to enable you to start them without going through the main menu. It also contains an icon for the Help Center, which provides online help for your system.

Desktop Previewer

Next to the quick launcher, find the desktop previewer, which shows your different desktops. These virtual desktops enable you to organize your work. If you use many programs simultaneously, you might want to run some programs in one desktop and other programs in the other desktop. To switch between desktops, click the desktop symbol in the panel.

Taskbar

The taskbar is located next to the desktop previewer. By default, all started applications and open windows are displayed in the taskbar, which allows you to access any application regardless of the currently active desktop. If you click a window title in the taskbar, the application is moved to the foreground. If it is already in the foreground, clicking minimizes the application.

System Tray

The rightmost part of the panel usually holds the system clock, the volume control, and several other helper applications.

To learn how to configure the appearance and behavior of your desktop, including the main menu, desktop icons, or the panel, refer to Changing Panel Elements (page 62).

1.3.1 Accessing the Main Menu

Open the main menu by clicking the icon to the far left of the panel. Alternatively, press Alt + F1. The main menu is subdivided into these sections: *Most Used Applications*, *All Applications* (a menu with all applications sorted according to categories), and *Actions*. Applications that you start most often appear in the *Most Used Applications* section.

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. If you already know the name of an application (or at least a part of its name) but are not sure how to start

it from the main menu, you can use the search function provided in the *All Applications* section.

Figure 1.4 *Main Menu Search Function*
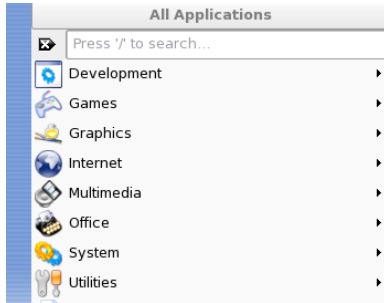
Just type a part of the application name into the search field without pressing the `Enter` key afterwards. If the application is installed on your system, the menu structure leading to this application is highlighted in the main menu.

The following section provides information about a number of actions that can be triggered from the main menu.

Recent Documents
Lists the most recently opened files or folders. When you select a document, the application to view or edit this document is started. You can also clear the history of documents.

My System
Gives quick access to some places often needed, such as your `home` directory or media devices.

Run Command
Opens a dialog where you can enter an command to start the application. The name of the command is often (but not always) the application name written in lowercase. You can use autocompletion of the command by typing the first letters then pressing `→|`. If the command was executed before and can be uniquely identified, it is completed to full length.

Switch User
To start a second session with a graphical user interface on your machine, select *Start New Session*. Your current session remains active while you are taken to the

login screen where you can log in as a different user. You can access the first session by pressing `Ctrl` + `Alt` + `F7`. To access a new session, press `F8` instead of `F7`. Additional sessions can be accessed by pressing `Ctrl` + `Alt` + `F9` to `F12`.

Lock Session
>   If you leave your computer you can prevent unauthorized access by others by locking your screen. After locking, a screensaver starts. Access to the session can only be regained with a password. To unlock, enter your normal login password.

Log Out
>   Opens a dialog with several options: you can end the current session, turn off the computer, restart the computer, or cancel the logout. *End Current Session* leaves your system running and restores the applications for your next login. If your system provides power management, you are also offered to suspend the computer, making the next system start much faster than a complete boot.

1.3.2 Inserting or Connecting Removable Media

If you insert or connect removable media to your computer (such as CD-ROMs, digital cameras, or USB sticks), these are usually automatically detected. In KDE, a dialog appears, showing the medium type detected and offering several options of what to do with the new medium. The list of options depends on the type of medium inserted.

Figure 1.5   *Autodetection of a USB Stick in KDE*

To view the data with a file manager, select *Open in New Window* and click *OK*. The Konqueror file manager appears, showing the contents of the removable device.

Figure 1.6   *Viewing the Contents of an USB Stick*
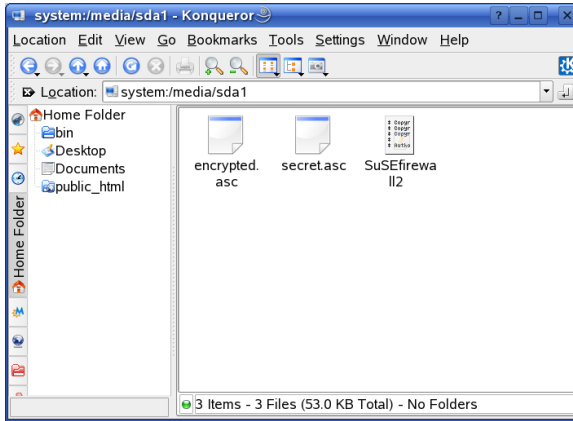
If you want the same action to be performed every time you insert a removable medium of that type, activate *Always do this for this type of media* in the autodetection dialog before clicking *OK*.

Procedure 1.1   *Configuring How to Handle Removable Media*

In the autodetection dialog, you can also configure how KDE should handle several types of removable media. For example, if you know that a certain type of medium that you use often always contains photos, you can configure it to open an image viewer application automatically:

1 In the autodetection dialog, click *Configure*.

2 A configuration dialog appears, showing a list of all available actions.

3 Click the *Medium types* drop-down list and select the type of medium for which to configure a certain action. The list of available actions now only shows actions applicable to the medium type selected.

4 Select the action to apply and click *Toggle as Auto Action*.

Figure 1.7   *KDE Configuration Dialog for Removable Media*
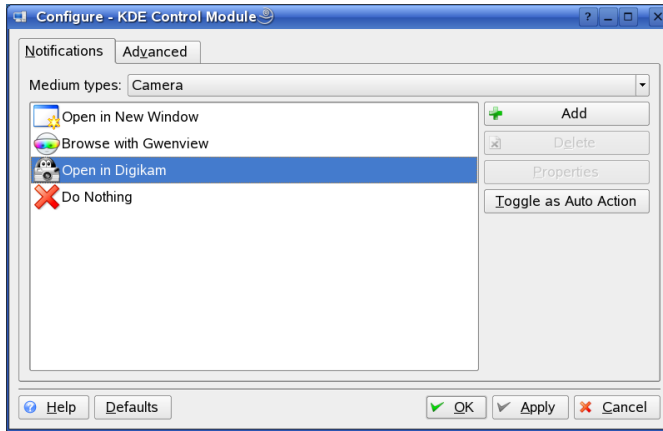
5 Click the *Advanced* tab and make sure the *Enable medium application autostart after mount* check box is selected.

6 Click *OK* to apply the changes and close the configuration dialog. Now every time you insert a medium of this type, the configured action is executed automatically and the autodetection dialog does not appear any more.

To reset the action assigned to the type of medium and restore the default options, proceed as follows:

1 Start the KDE Control Center from the main menu by selecting *Personal Settings*.

2 In the left-hand navigation bar, click *Peripherals → Storage Media*. The configuration dialog appears on the right.

3 Click *Default* and *Apply*. The next time you insert a medium, the autodetection dialog appears again, leaving you the choice of what to do with the medium.

1.3.3 Accessing Removable Media

KDE offers several ways to access removable media at any time. Clicking *My Computer* on the desktops opens a view as shown in Figure 1.8, "My Computer" (page 27).

Figure 1.8 *My Computer*
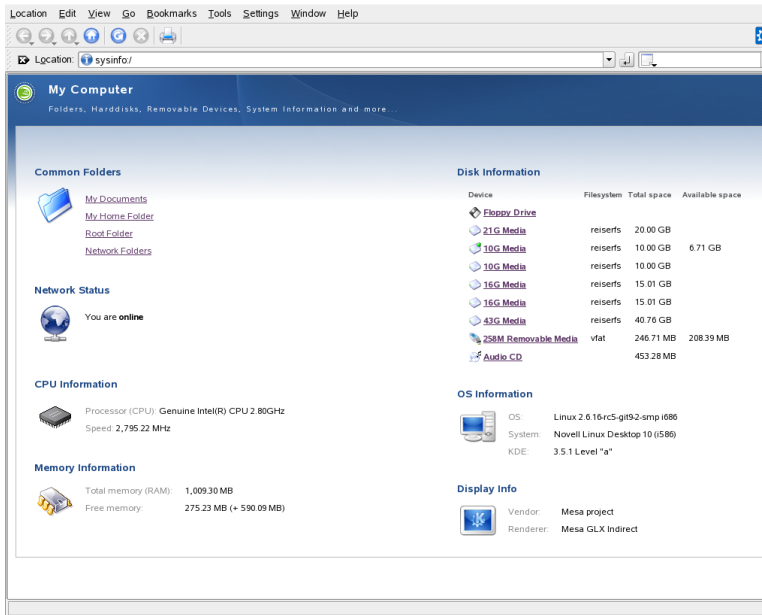
If you start Konqueror as a file manager (see Section 1.4, "Managing Folders and Files with Konqueror" (page 29)) and click *Storage Media* on the start window or enter `media:/` in the location bar, Konqueror displays the storage devices as shown in Figure 1.9, "Displaying Media in Konqueror" (page 28).

Figure 1.9   *Displaying Media in Konqueror*
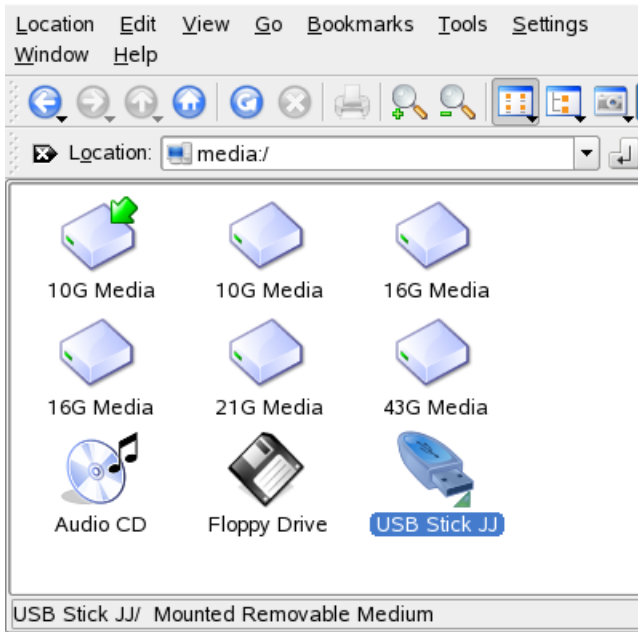
You can also name removable devices, such as USB sticks, with Konqueror. Right-click the USB stick in Konqueror and select *Properties*. On the *General* tab, enter a name in the input field and click *OK*. When inserting the stick the next time, Konqueror displays the name of the stick.

A small green arrow indicates that a medium has been *mounted* (integrated into your file system, which is necessary to access the data on the medium). In SUSE Linux Enterprise Desktop, you normally do not have to care about mounting removable devices because this is done automatically by default.

NOTE: Removing Media Safely

If you want to remove or disconnect a medium from your computer, make sure that the data on the medium is currently not accessed by any application or user. Otherwise risk a loss of data. To safely remove the medium, proceed as follows:

1.   Open a view that displays all removable media.

2. Right-click the medium to remove and select *Safely Remove* or *Eject*. *Safely Remove* unmounts the medium after which you can disconnect the medium from your computer. *Eject* automatically opens the CD or DVD drive of your computer.

1.3.4 Managing the Trash Bin

The trash bin is a directory for files marked for deletion. Drag icons from the file manager or the desktop to the trash bin icon by keeping the left mouse button pressed. Then release to drop them there. Alternatively, right-click an icon and select *Move to Trash* from the menu. Click the trash bin icon to view its contents. You can retrieve an item from the trash if desired.

Files removed with *Delete* are not moved to the trash bin, but deleted completely. To delete the files in the trash bin completely, right-click the trash bin icon then click *Empty Trash Bin*.

1.4 Managing Folders and Files with Konqueror

Konqueror is a unified Web browser, file manager, document viewer, and image viewer. The following sections cover using Konqueror for file management. For information about Konqueror as a Web browser, see Chapter 13, *Browsing with Konqueror* (page 209).

Start Konqueror as a file manager by clicking the house icon in the panel. Konqueror displays the contents of your home directory.

Figure 1.10 *The File Manager Konqueror*
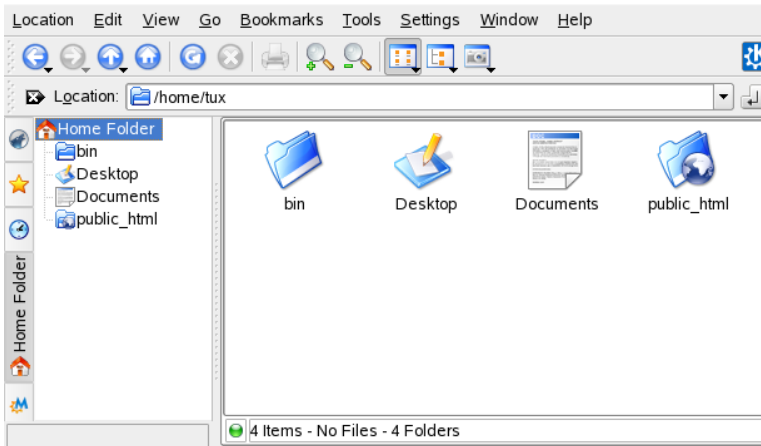
The Konqueror file manager window consists of the following elements:

Menu Bar
> The menu bar holds menu items for actions like copying, moving, or deleting files, changing views, starting additional tools, defining your settings, and getting help.

Toolbar
> The toolbar provides quick access to frequently used functions that can also be accessed through the menu. If you hover the pointer over an icon, a short description is displayed. To the right, the toolbar features the Konqueror icon, which is animated while a directory or Web page is loaded.

Location Bar
> The location bar shows the path to the directory or file in your file system. You can enter a path to a directory directly by typing it in or by clicking one of the directories in the display field. Delete the contents of the line by clicking the black symbol with a white X located left of the location bar. After typing an address, press Enter or click *Go* to the right of the input line.

> Unlike a Windows operating system, Linux does not use drive letters. In Windows, you would address the floppy drive as A:\, Windows system data is under C:\, and so on. In Linux, all files and directories are located in a tree-like structure. The topmost directory is referred to as the file system root or just /. All other directories

can be accessed from it. In the following, find a short overview of the most important directories in a Linux file system:

/home holds the private data of every user who has an account on your system. The files located here can only be modified by their owner or the system administrator. Your e-mail directory is located here, for example.

NOTE: Home Directory in a Network Environment

If you are working in a network environment, your home directory may not be called /home but can be mapped to any directory in the file system.

/media generally holds any type of drive except the hard drive of your system. Your USB flash drive appears under /media once you have connected it, as do your digital camera (if it uses USB) and DVD or CD drive.

Under /usr/share/doc, find any kind of documentation on your Linux system and the installed packages. The manual subdirectory holds a digital copy of this manual as well as the other manuals and the release notes of the installed version of your Linux system. The packages directory holds the documentation included in the software packages.

/windows only appears if you have both MS Windows and Linux installed on your system. It holds the MS Windows data.

Learn more about the Linux file system concept and find a more comprehensive list of directories in Section 14.1.2, "Linux Directory Structure" (Chapter 14, *Working with the Shell*, ↑Deployment Guide).

Navigation Panel
    You can hide and show the navigation panel by pressing F9. The navigation panel displays your information in a tree view. Determine which contents you want to see by clicking one of the symbols in the tab at the left of the navigation panel. If you hold your mouse pointer over an icon, a short description is displayed. For example, you can show the file system as a tree starting at the root folder or at your home folder.

Display Field
    The display field shows the contents of the selected directory or file. In the *View* menu, choose between different view modes to display the contents, such as *Icon*

View, *Tree View*, or *Detailed List View*. If you click a file, Konqueror shows a preview of the contents or loads the file into an application for further processing. If you hold the mouse pointer over the file, Konqueror shows a tool tip with detailed information about the file, such as owner, permissions, or last modification date.

By default, Konqueror does not show any hidden files, which are often system files that you usually do not want to access or see. In Linux, hidden files are indicated by a dot in front. You can toggle the view to see or hide hidden files by selecting *View → Show Hidden Files*.

1.4.1 Copying, Moving, or Deleting Files

For performing actions like copying, moving, or deleting files, you need appropriate permissions to the folders and files involved in your action. Read more about changing access permissions in Section 1.4.3, "Changing Access Permissions" (page 33).

TIP: Selecting Objects in Konqueror

Clicking a file or a folder in Konqueror directly starts an action: a preview of the file is displayed or the folder is opened. To former users of MS Windows, this behavior may be rather unusual. If you just want to select one or several files without any other action, press Ctrl then click the object. Alternatively, alter your mouse settings in the KDE Control Center (see Section 2.2.6, "Regional & Accessibility" (page 72)).

To copy or move a file or folder, proceed as follows:

1 Right-click the object and select *Copy* or *Cut* from the context menu. The object is kept in the clipboard.

2 Navigate to your destination folder under which you want to insert the object. Right-click the destination folder and select *Paste*. The object is copied or moved there.

The quickest way to perform actions like copying or moving objects in Konqueror is the drag-and-drop method. For instance, you can easily move objects from one window to another by simply dragging them. When dropping the object, you are asked whether the objects should be moved or copied.

To delete a file or folder, proceed as follows:

- Select the object and press `Del` or right-click the file then select *Move to Trash* from the context menu. The object is moved to the trash bin. If necessary, you can restore the file or folder from there or delete it completely. See also Section 1.3.4, "Managing the Trash Bin" (page 29).

- To delete the object irretrievably, click *Edit* → *Delete* or press `Shift` + `Del`. If you want to add *Delete* to the context menu, configure this behavior in Konqueror by clicking *Settings* → *Configure Konqueror* → *Behavior* and activating the respective check box.

1.4.2 Creating a New Folder

To create a new folder in Konqueror, proceed as follows:

1 Right-click the folder to which to add a subfolder.

2 Select *Create Folder*.

3 In the *New Folder* dialog, enter a name for the new folder and click *OK*.

1.4.3 Changing Access Permissions

Because Linux is a multiuser system, every file in a Linux file system belongs to a user and a group. All users, including the superuser, have their own home directories where private data, like documents, bookmarks, or e-mail, are stored. Write access to these home directories is strictly limited to the owner by default. As an owner of a file or directory, you can change the access permissions to your files. For example, you can protect files holding sensitive data against read access by other users and you can authorize other users to write, read, or execute several of your files where appropriate.

Traditionally, three permission sets are defined for each file object on a Linux system. These sets include the read (r), write (w), and execute (x) permissions for each of three types of users—the file owner, the group, and other users. For detailed information about the user concept of Linux, refer to Section 14.2, "Users and Access Permissions" (Chapter 14, *Working with the Shell*, ↑Deployment Guide). Instead of using the "tradi-

tional" way to change access permissions in a shell, you can also use the graphical user interface Konqueror provides.

To set permissions for a file, choose from the following options in Konqueror:

Forbidden
> Users can see the filename in the file system but cannot open the file and read it.

Can Read
> Users can open and read the file but cannot change it.

Can Read & Write
> Users can open, read, and change the file.

To set permissions for a folder, the following options are available in Konqueror:

Forbidden
> Users can see the folder name in the file system but cannot open the folder.

Can View Content
> Users can see the folder contents.

Can View & Modify Content
> Users can see the folder contents and create new files or subfolders.

To change access permissions:

1 Open Konqueror and select the file or folder for which to change access permissions.

2 Right-click the file and select *Properties*. A new dialog opens.

3 Click the *Permissions* tab. It shows the ownership of the file or folder in the lower part. The upper part shows the current access permissions.

4 From the lists for *Owner*, *Group*, and *Others*, select the permissions to set for the file or folder.

5 Click *OK* to apply the changes.

Apart from this traditional permission concept for file system objects, you can also use access permission lists (ACLs) with Konqueror. With ACLs, permissions can be defined

more flexibly than the traditional permission concept allows. They allow assigning permissions to individual users or groups even if these do not correspond to the original owner or the owning group. For more in-depth information about ACLs, refer to Chapter 12, *Access Control Lists in Linux* (↑Deployment Guide).

To grant certain users or groups access permission to a file or folder, proceed as follows:

1 Open Konqueror and select the file or folder for which to change access permissions.

2 Open the *Properties* dialog for the file or folder and click the *Permissions* tab.

3 Click *Advanced Permissions*. The following dialog shows the current permissions for the object.

Figure 1.11   *Advanced Permissions for a File or Folder*
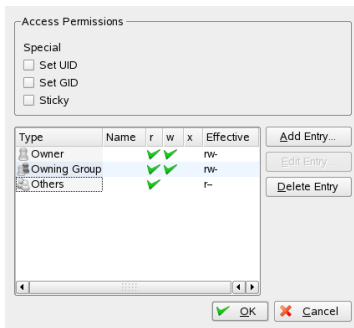
4 Click *Add Entry*.

5 To grant a certain user access permission to the file or folder, select *Named User* and select a user from the list.

To grant a certain group access permission to the file or folder, select *Named Group* and select a group from the list.

6 In the *Advanced Permissions* dialog, the added user or group appears in the list showing the current permissions. The green check marks in the columns *r*, *w*,

and *x* indicate that the user has read, write, and execute access to the file or folder.

Figure 1.12   *Assigning Permissions to a Certain User*
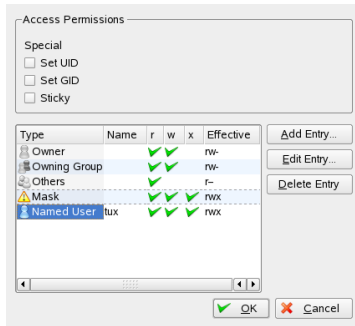
7 You can modify the access rights for the user by clicking the corresponding check marks for this user in the column *r*, *w*, or *x*.

8 When all access permissions are set according to your wishes, click *OK* to close the dialog.

9 Click *OK* to apply your changes and to close the *Properties* dialog.

1.4.4 Changing File Associations

With Konqueror, you can decide which application should be used to open a file.

Figure 1.13 *Configuring File Associations in Konqueror*
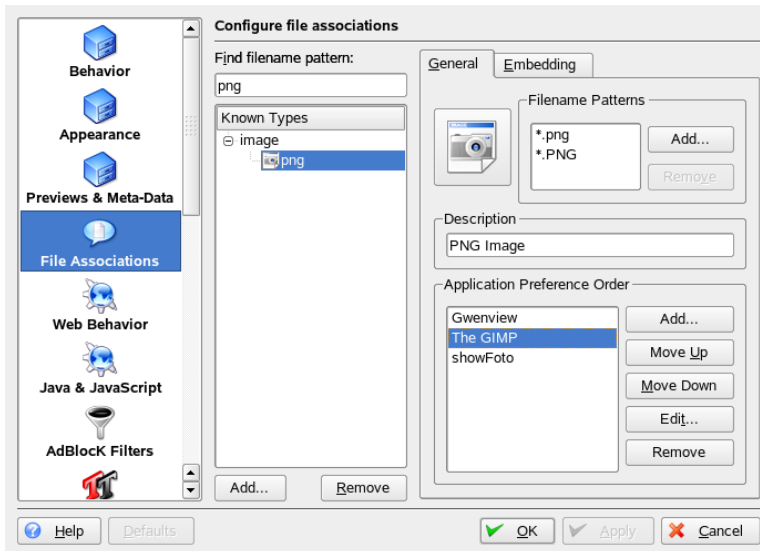
1 In Konqueror, click *Settings → Configure Konqueror → File Associations*.

2 To search for an extension, enter the extension in *Find Filename Pattern*. Only file types with a matching file pattern appear in the list. For example, to modify the application for *.png files, enter png in *Find Filename Pattern*.

3 In the *Known Types* list, click the file type to open the setting dialog for this file type. You can change the icon, the filename patterns, description, and the order of the applications.

   If your tool is not listed, click *Add* in *Application Preference Order* then enter the command.

   To change the order of the list entries, click the program to move then give it a higher or lower priority by clicking *Move Up* or *Move Down*. The application listed at the top is used by default when you click a file of this type.

4 If you need a file type that is not listed in the *Known Types* list, click *Add* to open a dialog where you can select a group and enter a type name. The group determines the main type, for example, audio, image, text, or video. Your file type can usually be assigned to one of these.

a Click *OK* then determine the extensions of the filename.

b Specify a description in the text field and select which application to use.

5 Click *OK*.

1.4.5 Saving View Profiles

You can temporarily change the view of certain folders by selecting a different *View Mode* in the *View* menu. To apply these changes to all folders, you can save your options to a view profile. To do so, change the view according to your wishes and click *Settings → Configure View Profiles*. Enter a name for the profile to save and click *Save*. The view is changed for all folders and saved in this profile. You can now load this profile at any time by clicking *Settings → Load View Profile*. By default, Konqueror contains several view profiles designed for various tasks. You can also take one of these profiles as a draft and modify it according to your needs.

1.4.6 Accessing Digital Cameras with Konqueror

With Konqueror, you can also access your digital camera. Connect your camera to the USB port. A camera icon should appear on the desktop. Click this icon to open the camera in Konqueror. The camera can also be accessed by entering the URL `camera:/` in Konqueror. Navigate through the camera's directory structure until the files are shown. Use the usual Konqueror file management features to copy the files as desired.

1.4.7 Viewing Images with Konqueror

You can also easily use Konqueror as image viewer. For a quick and comfortable overview of all images in a directory, select the directory and click the *Image View* icon in the toolbar. Konqueror generates thumbnails and shows them on the left-hand side of the window. Click a thumbnail to see the full-size view of the picture on the right-hand side of the window. A number of additional icons appears in the toolbar for navigating back and forth, zooming or rotating the pictures, or creating a slide show. To toggle to "normal" view again, click *Icon View* or *Tree View* in the toolbar.

Apart from this functionality, you can also create image galleries that show your images in an album-like fashion. Open your image directory in Konqueror and click *Tools →Create Image Gallery*. A dialog opens where you can specify the background and foreground colors, the page title, the location to save the gallery, and other settings. Click *OK* to start the action. By default, a file called `index.html` is created. If you click this file in Konqueror, your images are displayed in a miniaturized, organized view. Click an image to access its full-size view.

Figure 1.14   *Creating an Image Gallery with Konqueror*
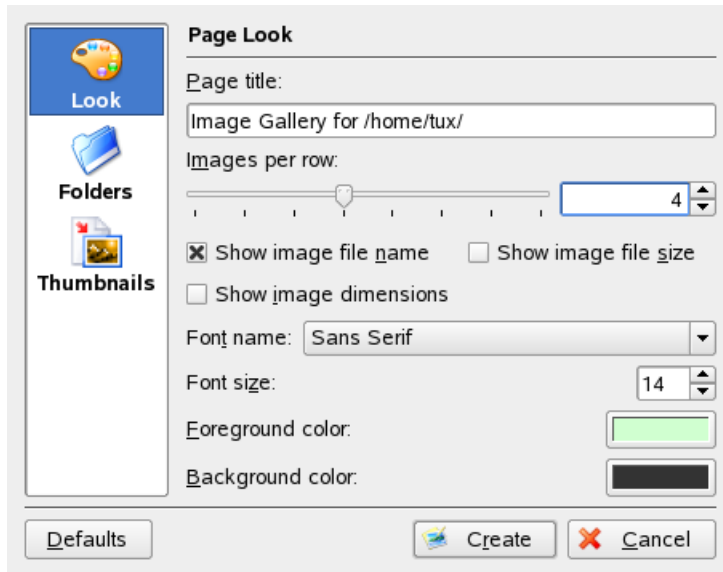
For viewing your images, you can also use Gwenview. To start Gwenview, press [Alt] + [F2] and enter `gwenview`. For further information about Gwenview, see the Gwenview online help.

For downloading photographs from digital cameras, you can use Digikam as described in Chapter 18, *Using Digital Cameras with Linux* (page 241).

1.5 Accessing Network Resources

From your desktop, you can access files and directories or certain services on remote hosts or make your own files and directories available to other users in your network.

SUSE Linux Enterprise Desktop 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 your file manager, Konqueror.

To do so, click the *Network Browsing* icon on the desktop. The window displays the network share types that you can access. Click a network resource type then click the network share to access. You might be required to authenticate to the resource by providing a username and password.

Figure 1.15   *Workgroups on a Windows Network*
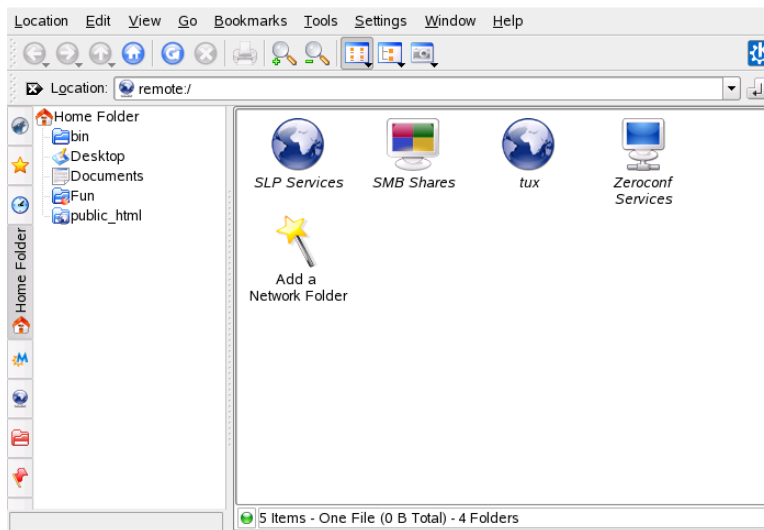
1.6 Opening or Creating Documents with OpenOffice.org

The office suite OpenOffice.org offers a complete set of office tools including a word processor, spreadsheet, presentation, vector drawing, and database components. Because OpenOffice.org is available for a number of operating systems, you can use the same data across different computing platforms. You can also open and edit files in Microsoft Office formats then save them back to this format, if needed.

To start OpenOffice.org, press ⎇Alt + F2 and enter OOo or click the Office icon on the desktop.

For an introduction to OpenOffice.org, see Chapter 3, *The OpenOffice.org Office Suite* (page 77) or view the help in an OpenOffice.org program.

1.7 Finding Data on your Computer or in the File System

KDE provides more than one application for finding data on your computer or in the file system. With Kerry, you can very 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. For more information, refer to Chapter 11, *Searching with Kerry* (page 195).

With KFind, you can locate files on your computer or in the file system using a variety of search criteria, such as file content, dates, owner, or file size. Start it from the main menu with *Find Files/Folders*. Alternatively, press ⎇Alt + F2 and enter kfind.

Figure 1.16   *Finding Files with KFind*
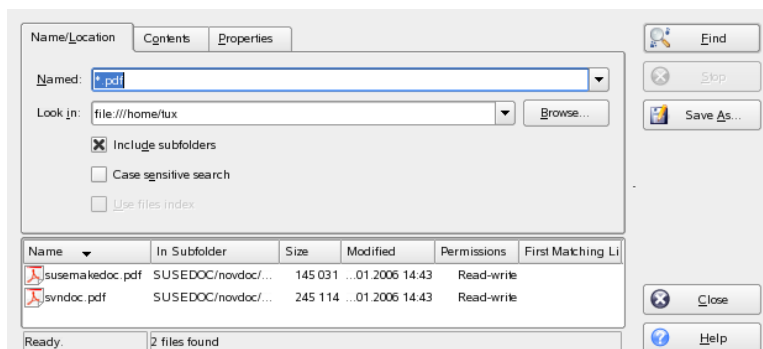
1.7.1 Finding Files

To perform a search for certain filenames, proceed as follows:

1 Start KFind from the main menu or command line.

2 Click the *Name/Location* tab to perform a basic search.

3 Specify the name of the file to find in *Named*. You can use the following wild cards:

Asterisk

The asterisk (*) stands for any number of missing characters (even zero). For example, searching for `marc*` can find the files *marc*, *marc.png*, and *marc_must_not_read_this.kwd*. Searching for *mar*.kwd* can find *marketplace.kwd* and *marc_must_not_read_this.kwd*.

Question Mark

The question mark (?) stands for exactly one character. For example, searching for `mar?` can find *marc*, but `marc?` cannot find anything if your files are named *marc* and *marc.png*. You can put as many question marks in the search term as you want. It finds exactly that number of characters.

You can combine those two wild card symbols in any search term.

4 Specify the folder to search in *Look In* or click *Browse* to find the folder you want. Select *Include Subfolders* to also search all subfolders starting from your specified folder.

5 Press ⎡Enter⎤ or click *Find*.

1.7.2 Performing an Advanced File Search

For a more detailed search, you can also specify further options, such as a text the file to find must contain:

1 Start KFind from the main menu or the command line.

2 Click the *Name/Location* tab.

3 Specify the name of the file to find in *Named*.

4 Specify the folder in which to search in *Look In* or click *Browse* to find the folder.

5 Click the *Contents* tab.

6 In *File Type*, specify the type of file to find.

7 In *Containing Text*, enter the word or phrase the file you are searching for must contain.

8 If you want to specify further options, click the *Properties* tab and choose the options you want. If you hold the mouse pointer over the options or fields, a short description is displayed.

9 Click *Find* to perform the search.

For detailed information about the search options available, refer to the KFind online help.

For advanced searches, you may want to use search patterns or regular expressions. KRegExpEditor offers search options based on regular expressions. You can install KRegExpEditor with YaST as the package `kdeutils3-extra`. For more information about search patterns and the use of wild cards or regular expressions, refer to Section 14.1, "Getting Started with the Bash Shell" (Chapter 14, *Working with the Shell*, ↑Deployment Guide).

1.8 Exploring the Internet

In KDE, the default Web browser is Konqueror. To start Konqueror, click the Konqueror icon on the panel or press `Alt` + `F2` and enter `konqueror`. Learn more about Konqueror as a Web browser in Chapter 13, *Browsing with Konqueror* (page 209).

In addition to Konqueror, you can use a Mozilla-based browser, Firefox. Start Firefox from the main menu or by pressing `Alt` + `F2` and entering `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 about Firefox, see Chapter 14, *Browsing with Firefox* (page 217) .

1.9 E-Mail and Scheduling

KMail is an e-mail client that supports e-mail protocols like POP3 and IMAP. It also has multiple e-mail account support, powerful filters, PGP/GnuPG privacy, and online attachments. Start KMail from the main menu or press `Alt` + `F2` and enter `kmail`.

Kontact is a personal information management (PIM) tool that combines well-known applications like KMail, KOrganizer, and KAddressBook into a single interface. This lets you have easy access to your e-mail, calendar, address book, and other PIM functionality. To start Kontact, press `Alt` + `F2` and enter `kontact`. For detailed information about using Kontact, see Chapter 4, *Kontact: E-Mailing and Calendaring* (page 111).

1.10 Moving Text between Applications

To copy text to the clipboard and insert it again, former MS Windows users automatically try the shortcut keys `Ctrl` + `C` and `Ctrl` + `V`, which often work in Linux as well. Copying and inserting texts is even easier in Linux: to copy a text to the clipboard, just select the text with the mouse then move the mouse cursor to the position where you want the text copied. Click the middle button on the mouse to insert the text (on a two-button mouse, press both mouse buttons simultaneously).

With some applications, if a text is already selected in the application where you want to insert the text, this method does not work because the text in the clipboard is overwritten by the other selected text. For such cases, the KDE application Klipper is very useful. Klipper "remembers" the last entries you have moved to the clipboard. By default, Klipper is started when KDE is loaded and appears as a clipboard icon in the panel. To view the clipboard contents, click the Klipper icon. The most recent entry is listed on top and is marked as active with a black check mark. If an extensive text was copied to Klipper, only the first line of the text is displayed.

To copy an older text fragment from Klipper to an application, select it by clicking it, move the mouse pointer to the target application, then middle-click. For further information about Klipper, see the Klipper online help.

1.11 Important Utilities

The following pages introduce a number of small KDE utilities intended to assist in daily work. These applications perform various tasks, such as managing your Internet connections and your passwords, creating data archives, and viewing PDF files.

1.11.1 Managing Internet Connections

To surf the Internet or send and receive e-mail messages, connect an ISDN or ethernet card or a modem to your machine and configure it. This can be done with the help of the YaST system assistant. You can establish Internet connections with NetworkManager or KInternet. In YaST, select whether to use NetworkManager.

For further details, refer to *Network Connectivity Guide*. It includes a list of criteria that help you to decide whether to use NetworkManager or other applications and describes the usage of the applications.

1.11.2 Managing Passwords with KWallet Manager

Remembering all the passwords for protected resources to which you need to log in can be problematic. KWallet remembers them for you. It collects all passwords and stores them in an encrypted file. With a single master password, open your wallet to view, search, delete, or create entries. Normally you do not need to insert an entry manually. KDE recognizes if a resource requires authentication and KWallet starts automatically.

IMPORTANT: Protect Your KWallet Password

If you forget your KWallet password, it cannot be recovered. Furthermore, anyone who knows your password can obtain all information contained in the wallet.

Starting KWallet

When KWallet starts for the first time (for example, when you access a Web site where you must enter a password to log in), a dialog appears with the welcome screen. Choose between *Basic setup* (recommended) and *Advanced setup*. If you choose *Basic setup*, in the next screen you can choose whether to store personal information. Some KDE applications, such as Konqueror or KMail, can use the wallet system to store Web form data and cookies. Select *Yes, I wish to use the KDE wallet to store my personal information* to activate KWallet and leave with *Finish*.

If you choose *Advanced setup*, you have an additional security level screen. The default settings are generally acceptable for most users, but others may wish to change them. *Automatically close idle wallets* closes wallets after a period of inactivity. To separate network passwords and local passwords, activate *Store network passwords and local passwords in separate wallet files*. Close with *Finish*.

You can alter the settings at any time by right-clicking the KWallet icon in the panel and selecting *Configure Wallet*. A dialog box opens where you can select several options. By default, all passwords are stored in one wallet, *kdewallet*, but you can also add new wallets. Once configured, KWallet appears in the panel.

The KWallet Manager

To store data in your wallet or view its contents, click the KWallet icon in the panel. A dialog box opens, showing the wallets that are accessible on your system. Click the wallet to open. A window prompts for your password.

After a successful login, the KWallet Manager window opens. It is divided into four different parts: the top left part displays a summary, the top right part displays subfolders, the lower left part shows a list with folder entries, and the lower right part shows the contents of a selected entry.

In the KWallet Manager, you can change your master password for KWallet at any time with *File → Change Password*.

Figure 1.17 *The KWallet Manager Window*
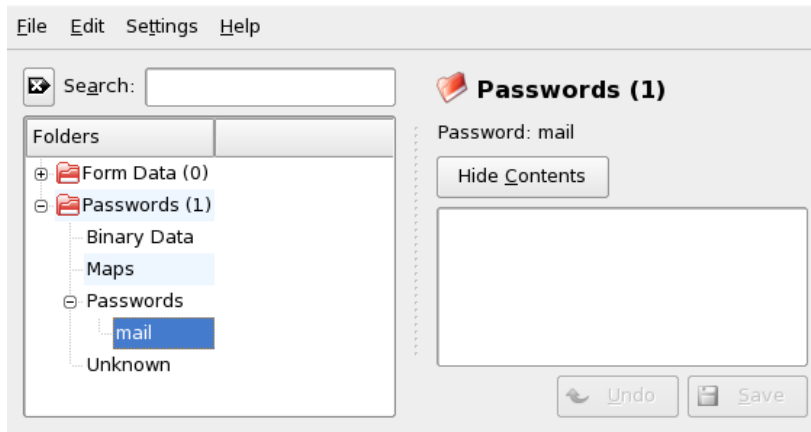
You can add or delete folders. Selecting a folder updates the folder entry list and the summary display. Selecting a folder entry updates the entry contents pane and allows you to edit that entry. Entries can also be created or deleted using the context menu for the folder contents.

To insert a new entry, proceed as follows:

Procedure 1.2 *Inserting New Entries in Your Wallet*

1 In the top right part of the window, select the subfolder to which to add an entry.

The lower left part shows a list of entries belonging to the subfolder. You can add a new entry to *Maps* or *Passwords*. Use *Maps* if you have key and value pairs. Passwords can contain multiline entries.

2 To add a new password, right-click the *Passwords* entry then select *New* from the context menu.

3 Specify a name for the new entry then click *OK*. Your new entry is sorted under your folder entry.

4 Click the new entry to display it on the right side (the folder is initially empty).

5 Click *Show Contents* to open an input field where you can enter your new password.

6 Type in your password and click *Save*. KWallet saves your password to the subfolder selected.

Copying Your Wallet to Another Computer

For the most part, KWallet resides silently in the panel and is automatically activated if needed. However, you can copy your wallet files to another computer (for example, your laptop). To simplify this task, wallets can be dragged from the manager window to a file browser window. This let you easily package a new wallet for transfer to another environment. For example, a new wallet could be created and copied onto a removable flash memory device. Important passwords could be transferred there, so you have them available in other locations.

1.11.3 Displaying, Decompressing, and Creating Archives

To save space on the hard disk, use a packer that compresses files and directories to a fraction of their original size. The application Ark can be used to manage such archives. It supports common formats, such as `zip`, `tar.gz`, `tar.bz2`, `lha`, and `rar`.

Start Ark from the main menu or from the command line with `ark`. If you already have some compressed files, move these from an open Konqueror window to the Ark window to view the contents of the archive. To view an integrated preview of the archive in Konqueror, right-click the archive in Konqueror and select *Preview in Archiver*. Alternatively, select *File → Open* in Ark to open the file directly.

Figure 1.18 *Ark: File Archive Preview*
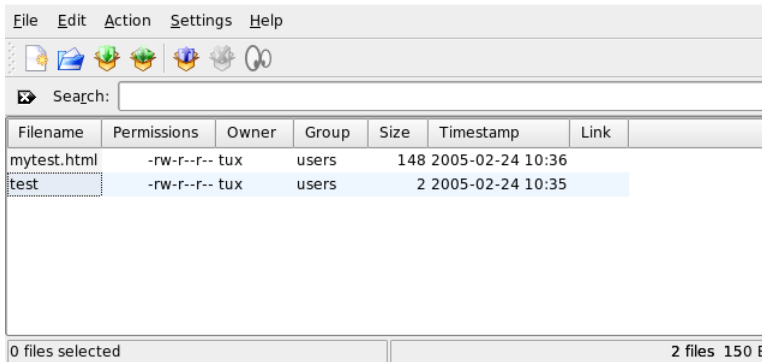
Once you have opened an archive, perform various actions. *Action* offers options such as *Add File*, *Add Folder*, *Delete*, *Extract*, *View*, *Edit With*, and *Open With*.

To create a new archive, select *File → New*. Enter the name of the new archive in the dialog that opens and specify the format using *Filter*. After confirming with *Save* or by pressing ⌸Enter⌸, Ark opens an empty window. You can drag and drop files and directories from the file manager into this window. As the final step, Ark compresses everything into the previously selected archive format. For more information about Ark, select *Help → Ark Handbook*.

1.11.4 Taking Screen Shots

With KSnapshot, you can create snapshots of your screen or individual application windows. Start the program from the main menu or by pressing ⌸Alt⌸ + ⌸F2⌸ and entering `ksnapshot`. The KSnapshot dialog consists of two parts. The upper area (Current Snapshot) contains a preview of the current screen and three buttons for creating and saving the screen shots. The lower area contains further options for the actual creation of the screen shot.

Figure 1.19   *KSnapshot*
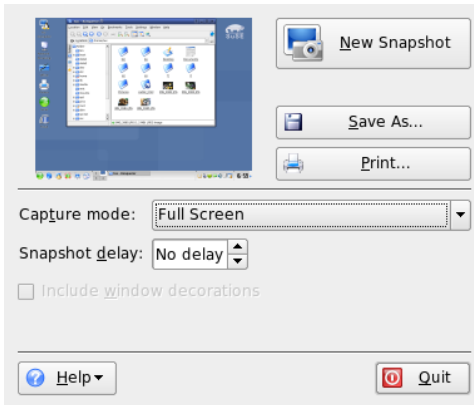
To take a screen shot, use *Snapshot Delay* to determine the time (in seconds) to wait between clicking *New Snapshot* and the actual creation of the screen shot. If *Only Grab the Window Containing the Pointer* is selected, only the window containing the pointer is saved. To save the screen shot, click *Save Snapshot* and designate the directory and filename for the image in the subsequent dialog. Click *Print Snapshot* to print the screen shot.

You can also use The GIMP to take screen shots. To open The GIMP, press [Alt] + [F2] and enter gimp. When you run GIMP for the first time, it installs some files in your home directory and displays dialogs that give you the opportunity to adapt it to your environment. For information about using The GIMP, refer to Chapter 17, *Manipulating Graphics with The GIMP* (page 233) or see its help. You may need to install the help with YaST (kdeutils3-extra).

1.11.5 Viewing PDF Files with KPDF

PDF is probably one of more important formats. KPDF is a KDE program that can view and print them.

Start KPDF by pressing [Alt] + [F2] and entering kpdf. Load a PDF file with *File → Open*. KPDF displays it in its main window. On the left side, there is a sidebar with thumbnails and a contents view. Thumbnails give an overview of the page. The contents view contains bookmarks to navigate in your document. Sometimes it is empty, meaning bookmarks are not supported by this PDF.

To view two pages in the main window, select *View → Two Pages*. The view depends on what last two options you activate in the *View* menu.

Another nice option is to select the area in which you are interested with the select tool from the toolbar. Draw a rectangle and choose from the pop-up menu whether you need the selected area as text or as a graphic. It is copied to the clipboard. You can even save the area to a file.

1.11.6 Font Administration with KFontinst

By default, SUSE® Linux Enterprise Desktop provides various fonts commonly available in different file formats (Bitmap, TrueType, etc.). These are known as *system fonts*. Users can additionally install their own fonts from various collections on CD-ROM. Such user-installed fonts are, however, only visible and available to the corresponding user.

The KDE control center provides a comfortable tool for administering system and user fonts. It is shown in Figure 1.20, "Font Administration from the Control Center" (page 51).

Figure 1.20   *Font Administration from the Control Center*
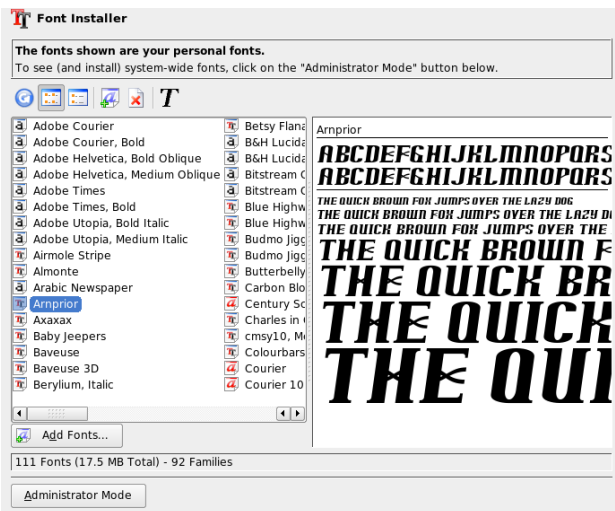
To check which fonts are currently available, type the URL `fonts:/` into the address field of a Konqueror session. This displays two windows: `Personal` and `System`. User-installed fonts are installed to the folder `Personal`. Only root can install to the `System` folder.

To install fonts as a user, follow these steps:

1. Start the Control Center and access the appropriate module with *System Administration → Font Installer*.

2. Choose *Add Fonts* from the toolbar or from the menu available when right-clicking the list.

3. In the dialog that opens, select one or more fonts for installation.

4. The marked fonts are then installed to your personal font folder. Selecting a font shows a preview.

To update system fonts, first select *Administrator mode* and enter your root password. Then proceed as described for user font installation.

1.11.7 Controlling Sound with KMix

YaST identifies and configures the sound cards of your computer automatically. Otherwise, start the YaST *Hardware* module and configure the sound card manually. When your sound card has been configured, you can control the volume and balance of the sound with a mixer.

TIP: Starting the Mixer

If the mixer icon (a loudspeaker symbol) is not visible in the panel of your desktop, press Alt + F2 and enter kmix or start the mixer from the main menu. You usually find it under *Volume Control*.

By default, clicking the KMix icon in the system tray shows the master controller where you can increase or decrease the overall volume. To switch off the sound, click the green LED, which darkens when it is muted. Toggle this option by clicking the LED again. To fine-tune your sound settings for several channels, right-click the KMix icon and select *Show Mixer Window*. In the main window, you can configure *Output*, *Input*,

and *Switches*. Each of the devices featured there has its own context menu that is opened by right-clicking the device icon. You can mute or hide each one of them separately. For further information about KMix, refer to the online help.

Figure 1.21   *The KMix Mixer*
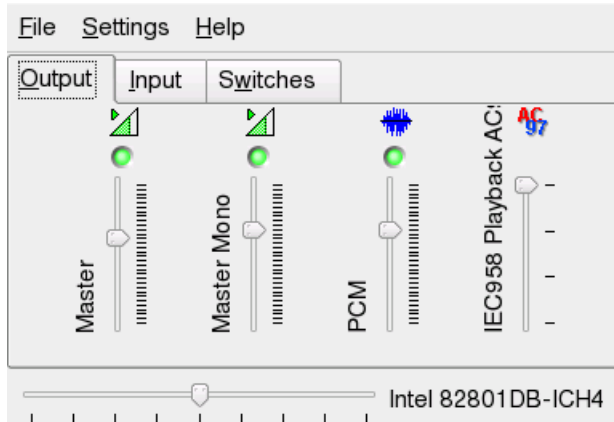
1.12 Managing Software

SUSE Linux Enterprise Desktop comes with a set of small helper applications that assist you in managing your software collection. You can install, remove and update software packages with just a few clicks.

1.12.1 Obtaining Software Updates

Novell offers a continuous stream of software security updates for your product. Using the Software Updater applet in your desktop panel, you can easily apply security updates with just a few clicks. Whenever you connect to the Internet, Software Updater automatically checks whether updates for your system are available from the updated sources specified in the Software Updater configuration and those set up during installation.

The Software Updater resides in the notification area (GNOME) or the system tray (KDE) of your panel as an icon depicting a globe, which changes color depending on the availability of a network link and new updates.

Left-click the panel icon to launch the updater window where you can select the software updates to be applied. Right-click the panel icon to access a menu with the following items:

Configure
   Select and configure additional update services and subscribe to additional catalogs. See Section "Configuring Additional Packages Sources" (page 54) and Section "Selecting Update Catalogs" (page 55).

Refresh
   Poll the update server for pending updates.

TIP

For background information on the underlying rug command and its configuration options, see Section 7.12, "Update from the Command Line" (Chapter 7, *System Configuration with YaST*, ↑Deployment Guide) or refer to the `rug` man page.

Configuring Additional Packages Sources

Apart from the official update source provided by Novell, you can configure Software Updater to check additional package sources for updates. Ask your system administrator for additional package sources that are available for your product and for connection details.

To add a new package source, proceed as follows:
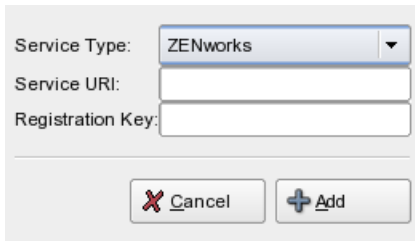
1 Right-click the Software Updater icon and click *Configure*.

Figure 1.22   *Adding an Additional Package Source*
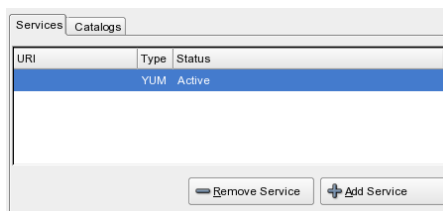
2 Click *Add Service*.

Figure 1.23   *Determining the Service Type*

3 Select the type of update repository from the drop-down list. Software Updater currently supports YUM, RCE, ZENworks, and user-mounted sources.

4 Add the connection details for the source type you selected (server URI and registration key) and click *Add*.

The source is listed in the Services tab and is ready to be used and checked for available update packages.

Selecting Update Catalogs

The officially supported update catalogs were automatically selected when you registered at the Novell update server. However, if you have added any custom installation sources, you can select a set of catalogs from those sources to be checked in addition to the preselected ones. There may be, for example, a catalog containing all the software that came with the original release of the product and another one containing all the update packages released since.

To select additional update catalogs, proceed as follows:

1 Right-click Software Updater and select *Configure*.

2 Select the *Catalogs* tab.

Figure 1.24 *Selecting a Catalog*
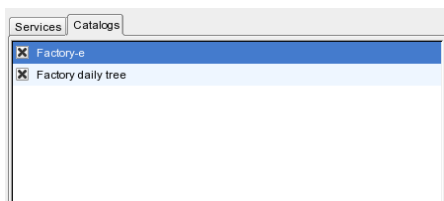
3 Select the catalogs you want or deselect those you do not need and close the configuration window by clicking the ⊠ in the upper right corner.

Selecting and Applying Updates

When updates are available, the panel icon changes color.

To review and apply updates, proceed as follows:

1 Click the panel icon.

2 Select from the list which updates you want to apply. Click *Details* for more information about the selected update.

Figure 1.25 *Selecting the Software Updates*
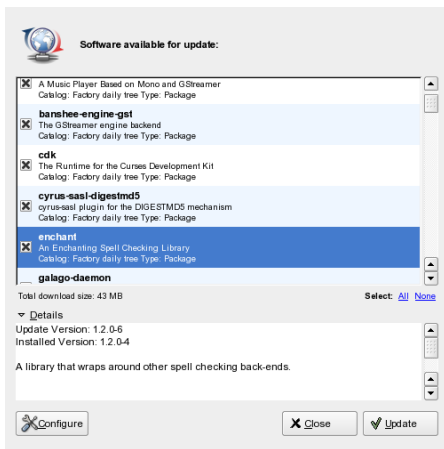
3 Click *Update*.

1.12.2 Installing Software

Software Installer lets you install software on your machine.

To install software, proceed as follows:

1 Select *Install Software* from the main menu.

Figure 1.26   *Selecting the Packages to Install*
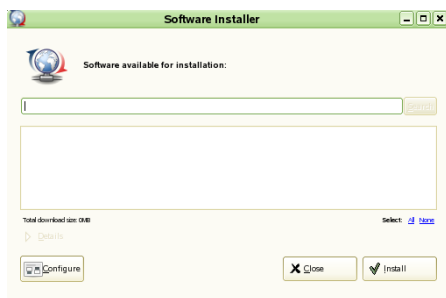
2 Select the software from the list that you want to install or search for software by typing a search term in the search field and clicking *Search*. Click *Details* for information about the selected software. You can select all available software by clicking *All*.

3 Click *Install*.

Configuring Additional Packages Sources

You can add package sources from which you can install software.

To add a package source, proceed as follows:

1 Select *Install Software* from the main menu.

2 Click *Configure*.

Figure 1.27 *Adding an Additional Package Source*
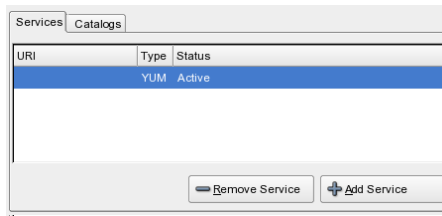
3 Click *Add Service*.

Figure 1.28 *Determining the Service Type*
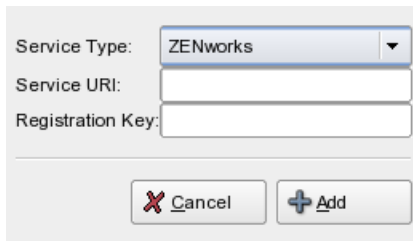
4 Select the type of the update repository from the drop-down list. Software Installer currently supports YUM, RCE, ZENworks, and user-mounted sources.

5 Add the connection details for the source type you selected (server URI and registration key) and click *Add*.

The source is listed in the *Services* tab and is ready to be used and checked for available packages.

Selecting Installation Catalogs

You can configure your Software Installer to accept additional catalogs.

To select additional installation catalogs, proceed as follows:

1 Select *Install Software* from the main menu.

2 Click *Configure*.

3 Select the *Catalogs* tab.

Figure 1.29 *Selecting a Catalog*
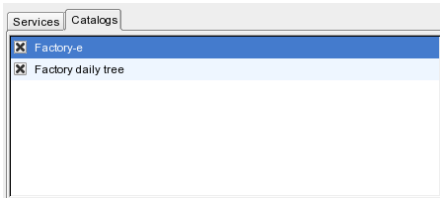
4 Select the catalogs you want or deselect those you do not need and close the configuration window by clicking the ⊠ in the upper right corner.

1.12.3 Removing Software

Software Remover lets you remove software from your machine.

To remove software, proceed as follows:

1 Select *Remove Software* from the main menu.

Figure 1.30   *Selecting the Software Packages to Remove*
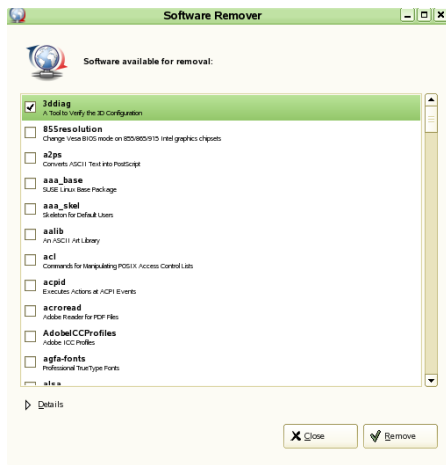
2 Select the software you want to remove. You can click *Details* for more information about the selected software.

3 Click *Remove*.

1.13 For More Information

As well as the applications described here for getting started, KDE 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 KDE and KDE applications, also refer to http://www.kde.org/ and http://www.kde-apps.org/.

• To report bugs or add feature requests, go to http://bugs.kde.org/.

Customizing Your Settings

2

You can change the way your KDE desktop looks and behaves to suit your own personal tastes and needs. If you only want to change the appearance of individual desktop objects, you can usually access a configuration dialog by right-clicking the object. For customizing certain groups of desktops elements or changing the overall appearance of your KDE desktop, refer to Section 2.2, "Configuring Your Desktop with the Control Center" (page 64).

2.1 Changing Individual Desktop Elements

In the following, find some examples of how to change individual desktops elements.

Procedure 2.1   *Creating New Desktop Objects*

To add a new desktop object, proceed as follows:

1 Right-click an empty space on the desktop and select *Create New*.

2 From the submenu, choose the type of object to create on the desktop: a folder or one of several types of files or links.

3 Enter the name of the new object when prompted to do so and click *OK*.

4 To change the properties of the new object, right-click the new icon and select *Properties*. A dialog appears, showing four tabs where you can change the properties of the object, such as the permissions.

5 Apply your changes and leave the dialog with *OK*.

Procedure 2.2 *Changing Panel Elements*

Add new elements to the quick launch area and the system tray in the panel as follows:

1 Right-click an empty patch of the panel.

2 To add a new application to the panel:

    a From the context menu, select *Add Application to Panel*.

    b Select the application to add from one of the categories of the submenu. The application icon is inserted into the panel.

    c To change the icon for the application, right-click the button and select *Configure Application Button*. By clicking the application icon in the dialog box that appears, open a new window in which to select a different icon.

    d To remove the icon from the panel, right-click the icon and select *Remove Button*.

3 To add a new applet to the panel:

    a From the context menu select *Add Applet to Panel*.

    b In the dialog box that appears, you can restrict the number of applets shown by selecting a special type of applet in *Show* or by typing a part of the applet name in *Search*.

Figure 2.1 *Adding an Applet to the Panel*
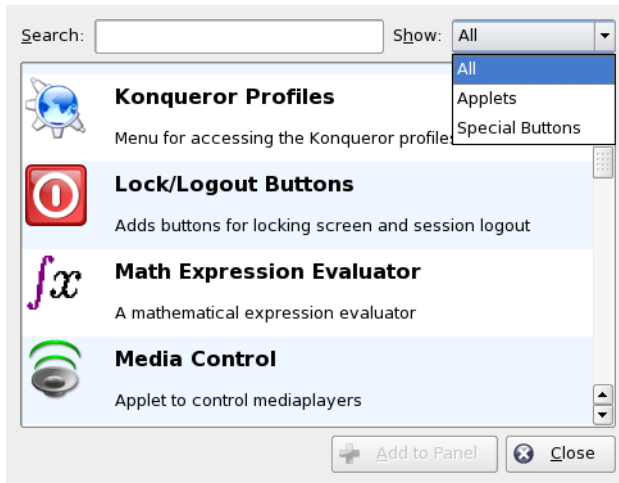
  c Select the applet to add and click *Add to Panel*. The applet is inserted into the panel.

  d To remove the applet from the panel, right-click the icon and select *Quit*. When the context menu of the applet does not provide a *Quit* menu item, hold the mouse pointer over the left-side boundary of the area and right-click the small black arrow displayed there. Select *Remove*.

4 To move an application icon to a different position in the panel, right-click the icon and select *Move*. The mouse pointer changes into a crosshair. Drag the pointer to the place in the panel where you want to insert the icon then press the left mouse button. The icon is inserted at the new position.

5 In the same way, you can also move areas of the panel, such as the desktop pre-viewer, the taskbar, and the system tray: Hold the mouse pointer over the boundary of the area and click the small black arrow displayed there. From the context menu, select *Move*. Click again to insert the area at the new position.

2.2 Configuring Your Desktop with the Control Center

With KDE, you can personalize your desktop to a very high degree. You can change a variety of settings, such as the desktop background, screen saver, fonts, keyboard and mouse configuration, and sounds. Adjust these settings with the modules of the KDE Control Center. Start the Control Center from the main menu by selecting *Personal Settings* or press Alt + F2 and enter `kcontrol`.

Figure 2.2 *KDE Control Center*

The sidebar provides different categories with a subset of settings each. Just click a category icon and explore the possibilities provided there. You can always return to the higher-level category by clicking *Back*. For an overview of all categories, switch to a tree view. Change the view by selecting *View* → *Mode* → *Tree View.*

Clicking an item displays the corresponding settings on the right. Change the settings as desired. No changes take effect until you click *Apply*. If you have changed an option then decide that you want to leave the settings as they were, click *Reset* to discard the changes. Reset all items on the page to the default values by clicking *Default*. Changing some settings may require root permissions. Log in as `root` if prompted to do so.

The following sections introduce the major categories and contain procedures for some common changes you may want to apply to your KDE desktop. Detailed information about the settings of each category is provided by the *Help* button on each page of settings or in the help center.

2.2.1 Appearance & Themes

This category lets you change the way your KDE desktop and applications look. You can access a number of settings.

Background holds options for the background of your desktop, such as colors, pictures, or slide shows. If you configured multiple virtual desktops, you can set different options for each. See Section 2.2.2, "Desktop" (page 67).

Colors lets you manage and edit color schemes for your desktop. There are a variety of color schemes installed by default, but you can also create your own color scheme using a predefined scheme as starting point.

With *Fonts*, all fonts and font attributes used on the KDE desktop can be configured. You can also modify antialiasing settings. By default, antialiasing is activated for all fonts. Antialiasing is a software technique for diminishing jagged edges that should be smooth. Although it reduces the jagged appearance of the lines, it also makes them fuzzier. To deactivate or customize antialiasing, select the corresponding options.

In the *Icons* section, control the icon style for the entire KDE desktop. Icons are used on the desktop, panel, and toolbars of applications. You can choose icon themes, adjust icon sizes, assign effects to icons (for example, you can make them semitransparent or colorize them), and configure settings for each of the different places icons are used.

Launch Feedback allows you to modify what kind of cursor and taskbar feedback you want for starting applications. For example, instead of a bouncing cursor indicating that an application is loading, you can set a blinking cursor.

A screen saver automatically appears if you do not use your computer for a specific time. In the *Screensaver* section, change the screen saver or configure the time-out before it starts.

In the *Splash Screen* section, you can change the splash screen that displays on KDE start-up.

Style holds options for user interface elements (called widgets) in KDE, such as buttons, menus, and scroll bars. You can choose a certain style and see a preview of it.

With *Theme Manager*, choose, install, or modify configuration sets (themes) for your KDE desktop.

Window Decorations provides options for the title bar of the windows and the style of the borders around windows.

Procedure 2.3   *Changing Your Desktop Background*

If you want to change your desktop background, for example, proceed as follows:

1 Start the Control Center from the main menu or press Alt + F2 and enter `kcontrol.`

2 Click *Appearance & Themes → Background.*

3 In *Settings for Desktop* select the virtual desktop to which the changes should apply.

Figure 2.3   *Changing the Background Picture*
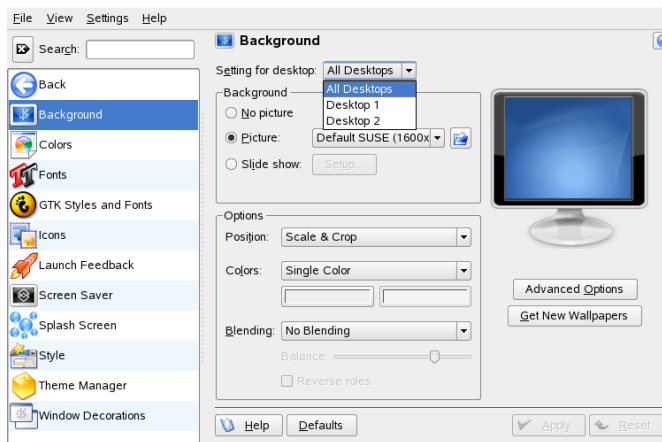
4 If you want to change the picture on the background, click *Picture* and select one of the pictures provided by the list. To use a custom picture, click the folder button beneath the list and select an image file from the file system.

5 Choose a certain *Position* for your picture in the *Options* group.

6 If you do not want a certain picture on the background, click *No picture*.

7 From the *Options* group, click the left button below *Colors* to select the color for your background. For a multicolor background, set *Colors* to an option other than *Single Color* and click the right button below to select a second color.

Figure 2.4   *Setting a Background Color for your Desktop*
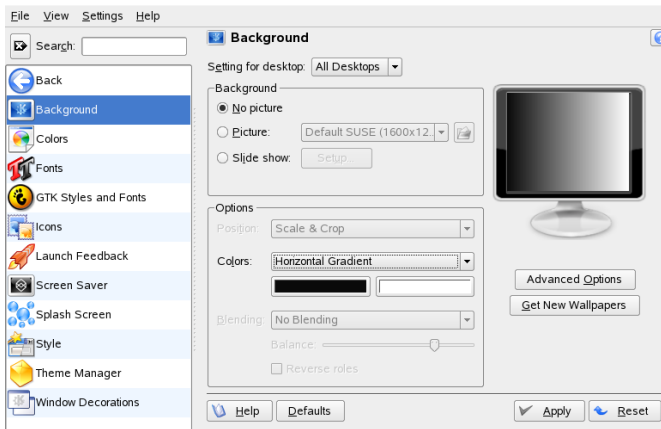
8 When all options are set according to your wishes, click *Apply*.

2.2.2 Desktop

The *Desktop* settings configure the appearance and behavior of your KDE desktop.

In *Behavior*, configure options such as showing or hiding desktop icons, showing tool tips, and icon layout. You can also specify if you want to see previews of particular file types on the desktop and which devices have icons.

In *Multiple Desktops*, increase or reduce the number of virtual desktops to use and enter a name for each desktop. By default, two virtual desktops are configured on your system. You can switch between the desktops with the desktop previewer in the panel or by using the mouse wheel.

Panels controls panel options such as size, position, length, and display. You can also change the appearance of the panel with transparency, background images, and icon zooming. Because the main menu is also part of the panel, also configure various menu options here, including the applications shown in your main menu.

In the *Taskbar* section, configure options such as whether to show windows from all desktops on the taskbar, grouping of similar tasks, and what action on the taskbar your mouse buttons trigger.

Window Behavior customizes the default KDE window manager, kwin. Here, control what happens when windows are moved, clicked, or resized. You can bind actions to certain keys and mouse events.

Window-Specific Settings lets you customize settings that only apply to some windows. It only takes effect if you use KWin as your window manager.

Procedure 2.4   *Configuring the Main Menu*

If you want to configure your main menu, proceed as follows:

1 Start the Control Center from the main menu or press ⌨Alt + ⌨F2 and enter
   `kcontrol`.

2 Click *Desktop → Panels*.

Figure 2.5   *Editing the Main Menu*
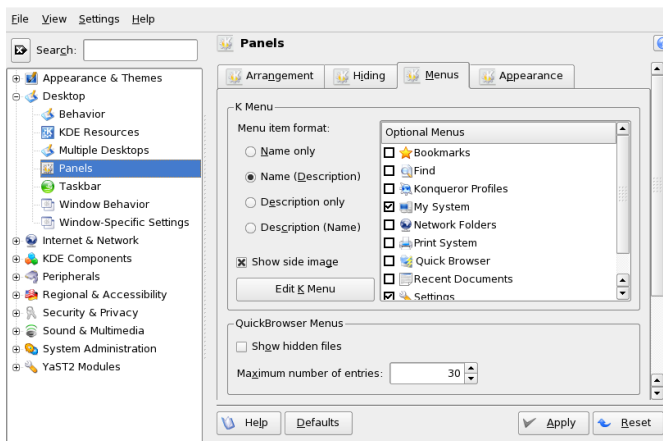
3 Click the *Menus* tab.

4 You can define whether you want to see the applications names or the descriptive text (or both) in the main menu. Select from *Name only*, *Name (Description)*, *Description only*, and *Description (name)*.

5 If you want to change a menu item, click *Edit K Menu*. The K Menu Editor shows a list of menu items on the left.

    a Click the item in the list and change its options on the right.

    b You can add new menu items, submenus, or separators with the *File* menu or the toolbar.

    c To cut, copy, paste, or delete objects in the main menu, use the *Edit* menu or the icons in the toolbar.

    d To apply your changes in the K Menu Editor, click *File → Quit*.

6 To apply all of your changes in the *Menus* tab and close the KDE Control Center, click *Apply* .

2.2.3 Internet & Network

The *Internet & Network* category helps you configure Internet and networking options.

Two sections deal with how to manage your Bluetooth devices and services: *Paired Bluetooth Devices* and *Bluetooth Services*. To learn more about Bluetooth, refer to Section 28.2, "Bluetooth" (Chapter 28, *Wireless Communication*, ↑Deployment Guide). In the *Connection Preferences* section, KDE lets you change the time-out values for different connections.

Desktop Sharing is useful if you want to invite other people to your desktops. Only let trustworthy users take part in your session.

File Sharing allows you to configure Samba (Windows) and NFS (UNIX) file sharing. The settings can only be changed if you are an administrator. If you log in as root, you can add, change, or remove folders to share with others.

Use *Local Network Browsing* if you want to browse a local network. It is like "Network Neighborhood." Take into account that you may need some additional software, especially the LISa daemon (see package kdenetwork3-lisa).

In *Proxy*, you can customize proxy and SOCKS servers. Normally, if your administrator does not tell you to use this, it is probably not useful for you.

The settings in *Samba* should only be configured with YaST.

Web Browser offers settings for the default KDE browser, Konqueror. For example, you can customize fonts, manage cookies, and determine Web behavior, such Web shortcuts. For more information about how to use Web shortcuts, refer to Section 13.5.2, "Using Web Shortcuts" (page 212).

2.2.4 KDE Components

This category holds advanced KDE options, such as the default application to open when clicking a link.

The *Component Chooser* module handles basic tasks. You can change the default e-mail client, text editor, messenger, terminal, and Web browser. Whenever a KDE application needs to start an application of these types, it always calls the default component set here.

KDE uses *File Associations* to identify a file type and start an appropriate application. Here, you can also choose which icon represents each file type and whether to show files of a certain type in an embedded or a separate viewer.

The *File Manager* module configures the behavior of Konqueror as a file manager. Here, define which fonts and font sizes to use, the path to your home directory, if previews are allowed, and if quick copy and move actions are allowed.

In *KDE Performance* , you can optimize the performance of your KDE desktop.

An overview of all plug-ins of the KDE daemon is shown in *Service Manager*. This module shows two different types: services invoked on start-up and services called on demand. Normally, do not change the settings of this module, because it is vital for KDE.

In *Session Manager*, define how KDE handles sessions on login and shutdown. By default, KDE remembers your previous session and restores the applications you were using the next time you login. You can define different options here, such as excluding individual applications from being restored.

Spell Checker lets you modify what spell checker to use, what types of errors to check for, and the default dictionary to use. The KDE spell checking system (KSpell) provides support for several spell checking utilities: the most commonly used are ASpell and ISpell. For more information, see also ASpell [`http://aspell.sourceforge.net`] and ISpell [`http://fmg-www.cs.ucla.edu/fmg-members/geoff/ispell.html`].

2.2.5 Peripherals

This category holds settings for various devices that can be plugged in to your computer, such as a digital camera, display, keyboard, and mouse.

Digital Camera lets you configure support for your digital camera. You can add your camera model and define the type of port by which it is connected to your computer.

With *Display*, modify your display options, such as screen size and power control if supported by your display.

Joystick helps to check whether your joystick is working correctly. You can adjust the calibration.

The *Keyboard* section allows you to modify basic keyboard settings such as keyboard repeat delay.

You can also adjust many *Mouse* settings, such as actions to trigger by single or double clicking, cursor themes, and double-click intervals.

With *OBEX Devices*, configure OBEX connections for your devices, such as PDAs.

Remote Controls allows you to configure bindings between your remote controls and KDE applications.

2.2.6 Regional & Accessibility

This category holds regional settings as well as options for handicapped users.

In *Accessibility*, configure functions that can help individuals with difficulties in hearing or motor function. These include certain sound and keyboard options.

The *Country/Region & Language* section lets you configure options that are specific for your location, such as language, currency, and number and date format.

In *Input Actions*, configure mouse gestures and keyboard shortcuts for starting applications and running commands.

In the *Keyboard Layout* section, find multiple layouts for different languages. If *Enable Keyboard Layouts* is selected, you can add and activate several keyboard layouts, such as English and German, and switch between them. Fine-tune them in the *Xkb Options* tab.

In the *Keyboard Shortcuts* section, you can define global KDE shortcuts. For an overview of the currently active shortcuts, refer to the list of *Global Shortcuts*. You can also choose a different, predefined shortcut scheme, such as a Windows or Mac scheme.

2.2.7 Security & Privacy

This category holds settings for personal security certificates, KWallet, password treatment, and privacy settings.

To make KDE more secure, *Crypto* allows you to configure SSL (secure socket layer). This is used in most KDE applications as well as others. There is also a possibility to manage your personal certificates.

KDE Wallet allows you to configure the KDE Wallet system, KWallet. It saves sensitive information, such as passwords and form data, for several applications in a strongly encrypted file, protected with a master password that you define. For information about using KWallet, see Section 1.11.2, "Managing Passwords with KWallet Manager" (page 45).

To change your personal settings, go to *Password & User Account*. Here, set a new name, organization, e-mail address, SMTP server, or password.

The *Privacy* module manages personal Web browsing data. For example, use it to clear the cache, delete the history of visited Web sites, or remove unwanted cookies.

2.2.8 Sound & Multimedia

Use this category to perform all settings for the playback of audio CDs and for the sound system.

In *Audio CDs*, configure encoding and device settings.

With *Sound System*, configure aRts, KDE's sound server. This allows you to hear your system sound while simultaneously listening to a music CD.

With *System Bell*, switch from system notifications (default) to a system bell and specify the volume, pitch, and duration of the bell.

The *System Notifications* section defines how the system should inform you in the event of a problem, when a task is performed, or if an event requiring your immediate attention occurs. In the upper part of the dialog, select the application for which to configure the system notifications. As soon as you select a program, all events the application can send to the user are listed in the lower window. Determine the notification type for each notification in the *Actions* dialog.

The default view of the system notification dialog only offers *Play a sound* for audible notification. Click *More Options* to access other action modes. You can log the notification to a file, execute a program, or show the message in a pop-up window. In the lower part of the dialog under *Quick Controls*, globally activate or deactivate the actions for all programs.

2.2.9 System Administration

This category offers options for central system tasks. Most of the sections require `root` permission to make changes.

With *Font Installer*, you can install personal or systemwide fonts. To change system fonts, click *Administrator Mode*.

The module *Linux Kernel* only takes effect if you have installed the source of your kernel. It is only useful if you are a developer compiling a new kernel and want to customize some options.

Login Manager configures the KDE login manager, KDM. You can change the appearance, fonts used, background shown, shutdown behavior, what users are displayed at login, and some convenience issues for the login screen.

The *Path* section defines the paths to some important directories for your data: `desktop`, `autostart`, and `documents`.

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 77). 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 108).

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

Module	Purpose
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 What's New in OpenOffice.org 2.0

OpenOffice.org 2.0 contains many improvements and features that were not included in earlier versions. The biggest new feature is the Base database module. There have been many other changes since the previous version, such as enhanced PDF export and improved word count capabilities. For a complete list of features, fixes, and enhancements, go to the OpenOffice.org Web site (`http://www.openoffice.org/dev_docs/features/2.0/`).

3.1.2 Enhancements in the Novell Edition of OpenOffice.org 2.0

The Novell Edition of OpenOffice.org included with SUSE® Linux Enterprise Desktop contains enhancements that are not available in the standard edition. These include:

3.1.2 Integration with SUSE Linux Enterprise Desktop

The Novell Edition of OpenOffice.org features redesigned tool bar icons for maximum consistency with SUSE Linux Enterprise Desktop, including support for desktop ap-

pearance or theme changes. These features provide a consistent interface across the Linux desktop, which enhances overall usability and helps minimize enterprise training and support requirements.

3.1.2 Native Desktop Dialogs

The Novell Edition of OpenOffice.org uses your desktop's native file dialogs rather than those in the standard edition. This provides the same look and feel of other applications in your environment, giving you a consistent, familiar experience.

3.1.2 Enhanced Support for Microsoft Office File Formats

OpenOffice.org supports import and export of Microsoft Office file formats, even taking advantage of compatible fonts to match document length. Transparent document sharing makes OpenOffice.org the best choice if you are deploying Linux desktops in a mixed Linux/Windows environment.

3.1.2 E-Mail as Microsoft Office Document

The standard edition of OpenOffice.org supports e-mailing of files as PDF files from within the OpenOffice.org application. With the Novell Edition of OpenOffice.org, you can also e-mail any document as a Microsoft Office file. For example, you can e-mail a Writer file as a Microsoft Word file. If that option is selected, the file is automatically converted and attached to an e-mail in your default e-mail application.

3.1.2 Excel VBA Macro Interoperability

The Novell Edition of OpenOffice.org eases the migration of many macros from Microsoft Excel. Although not all macros can be successfully migrated, this interoperability offers more than the standard edition, which does not support migration of macros.

3.1.2 Enhanced Fonts

For the Novell Edition of OpenOffice.org, Novell licensed fonts from AGFA that use the same or similar names as the fonts available in Microsoft Office. The fonts also look similar to those used by Microsoft. This allows OpenOffice.org to match fonts

when opening documents originally composed in Microsoft Office, and very closely match pagination and page formatting.

3.1.2 Integration with Novell Evolution

The Novell Edition of OpenOffice.org is tightly integrated with Novell Evolution™, allowing users to send documents as e-mail and to perform mail merges using the Evolution address book as a datasource.

3.1.2 Improved File Access

Files are available from any source available to the computer. Network files open and save seamlessly.

3.1.2 Anti-aliased Presentation Graphics

With hardware acceleration enabled (the default), the Novell Edition of OpenOffice.org provides higher-quality graphics in Impress slide shows.

3.1.2 Faster Start-up Times

The Novell Edition of OpenOffice.org includes an improved built-in quickstarter that loads OpenOffice.org components at system startup and thus improves the application's start-up time. Subsequent document load times have also been improved.

3.1.3 Using the Standard Edition of OpenOffice.org

The standard edition of OpenOffice.org also works with SLED. 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 Novell enhancements.

3.1.4 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 → Wizard → Document Converter*.

2 Choose the file format from which to convert.

There are several StarOffice and Microsoft Office formats available.

3 Click *Next*.

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

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

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

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

The amount of time needed for the conversion depends on the number of files
and their complexity. For most documents, conversion does not take very long.

Sharing Files with Users of Other Office Suites

OpenOffice.org is available for a number of operating systems. This makes it an excellent
tool when a group of users frequently need to share files and do not use the same system
on their computers.

When sharing documents with others, you have several options.

If the recipient needs to be able to edit the file: Save the document in the format
the other user needs. For example, to save as a Microsoft Word file, click *File → Save
As*, then select the Microsoft Word file type for the version of Word the other user
needs.

If the recipient only needs to read the document: Export the document to a PDF
file with *File → Export as PDF*. PDF files can be read on any platform using a viewer
like Adobe Acrobat Reader. ,

If you want to share a document for editing: Use one of the standard document
formats. The default formats comply with the OASIS standard XML format, making
them compatible with a number of applications. TXT and RTF formats, although limited
in formatting, might be a good option for text documents. 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 → Document as
PDF Attachment*.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 → Document as MS-Doc Attachment*. Your default e-mail program opens with the file attached.

3.1.5 Starting OpenOffice.org

1 Start the application in one of the following ways:

- On the menu bar, click .

  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.

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

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

2 Select 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*.

3.1.6 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 *Start at Startup*.

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

3.1.7 Customizing OpenOffice.org

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

This section contains simple, generic instructions for customizing your environment. The changes you make are effective immediately, so you can see if the changes are what you wanted and go back and modify them if they 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.

2 Click *Customize Toolbar*.

3 Select the toolbar you want to customize.

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

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

- OpenOffice.org module

  The customized toolbar is used whenever you open that module.

- Document filename

  The customized toolbar is used whenever you open that document.

6 Repeat to customize additional toolbars.

7 Click *OK*.

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

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

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

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

Customizing Menus

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

1 Click *Tools → Customize → Menu*.

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

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

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

4 Click *OK*.

Customizing Keyboard Shortcuts

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

1 Click *Tools → Customize → Keyboard*.

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

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

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

4 Click *OK*.

Customizing Events

OpenOffice.org also provides ways to assign macros to events such as application startup or the saving of a document. The assigned macro runs automatically whenever the selected event occurs.

1 Click *Tools → Customize → Events*.

2 Select the event you want to change.

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

3 Assign or remove macros for the selected event.

4 Click *OK*.

Changing the Global Settings

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

Figure 3.1 *The Options Window*
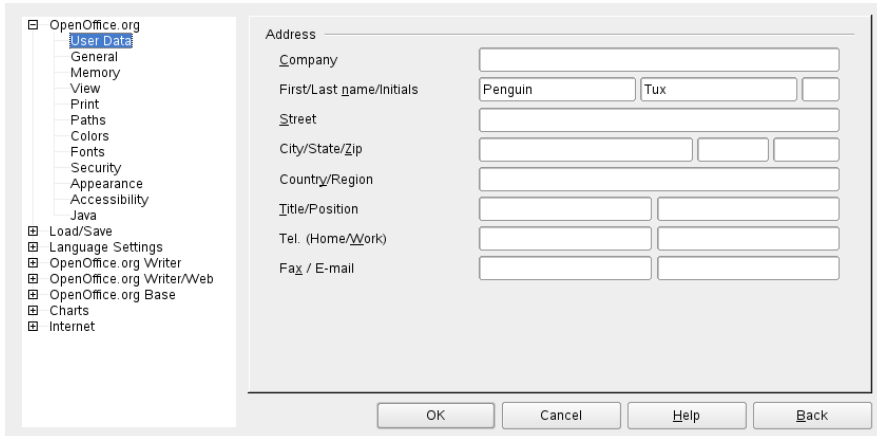
The following table lists the settings categories along with a brief description of each category:

Table 3.2   *Global Setting Categories*

Settings Category	Description
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.
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.
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.
Internet	Includes the dialogs to configure any proxies and to change settings related to search engines.
Text Document	Configures the global word processing options, such as the basic fonts and layout that Writer should use.
HTML Document	Changes the settings related to the HTML authoring features of OpenOffice.org.
Spreadsheet	Changes the settings for Calc, such as those related to sort lists and grids.
Presentation	Changes the settings that should apply to all presentations. For example, you can specify the measurement unit for the grid used to arrange elements.
Drawing	Includes the settings related to the vector drawing module, such as the drawing scale, grid properties, and some print options.

Settings Category	Description
Formula	Provides a single dialog to set special print options for formulas.
Chart	Defines the default colors used for newly created charts.
Data Sources	Defines how external data sources should be accessed.

IMPORTANT

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

3.1.8 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

Location	What You Can Find
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 94) and Section 3.3.2, "Using Templates in Calc" (page 100).

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 108).

NOTE

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

3.2.1 Creating a New Document

There are two ways to create a new document:

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

To use a standard format and predefined elements for your own documents, try a wizard. Wizards are small utilities that let you make some basic decisions 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*

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 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 with square check boxes and a bullet

Type of Style	What it Does
	list with round bullets, then easily apply the correct style when creating your lists.

Opening the Styles and Formatting Window

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

> **TIP**
>
> By default, the *Styles and Formatting* window is a floating window; that is, it opens in its own window that you can place anywhere on the screen. If you use styles extensively, you might find it helpful to dock the window so that it always present in the same part of the Writer interface. To dock the *Styles and Formatting* window, press `Control` while you double-click on a gray area in the window. This tip applies to some other windows in OpenOffice.org as well, including the Navigator.

Applying a Style

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

Using Styles Versus Using Formatting Buttons and Menu Options

Using styles rather than the *Format* menu options and buttons helps give your pages, paragraphs, texts, and lists a more consistent look and makes it easier to change your formatting. For example, if you emphasize text by selecting it and clicking the *Bold*

button, then later decide you want emphasized text to be italicized, you need to find all of your bolded text and manually change it to italics. If you use a character style, you only need to change the style from bold to italics and all text that has been formatted with that style automatically changes from bold to italics.

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

Likewise, if you manually format your paragraphs using *Format → Paragraph*, it is easy to end up with inconsistent paragraph formatting. This is especially true if you copy and paste paragraphs from other documents with different formatting.

Changing a Style

Styles are powerful because you can change formatting throughout a document by changing a style, rather than applying the change separately everywhere you want to apply the new formatting.

1 In the *Styles and Formatting* window, right-click the style you want to change.

2 Click *Modify*.

3 Change the settings for the selected style.

For information about the available settings, refer to the OpenOffice.org online help.

4 Click *OK*.

Creating a Style

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

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

Make sure you are in the list of styles for the type of style you want to create. For example, if you are creating a character style, make sure you are in the character style list.

2 Click *New*.

3 Click *OK*.

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

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

3.2.4 Using Templates to Format Documents

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

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

NOTE

You can convert Microsft Word templates like you would any other Word document. See Section "Converting Documents to the OpenOffice.org Format" (page 81) 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*
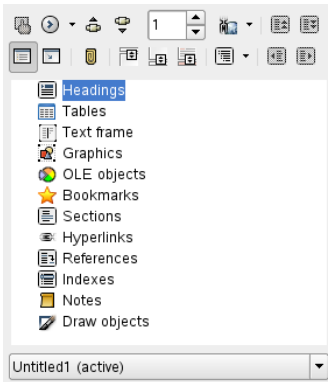
Click an item in the Navigator to jump to that item in the document.

Creating a Single Document from Multiple Documents

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

A master document is a Writer document that serves as a container for individual 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 will probably 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 no longer available.

NOTE

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

3.3 Using Spreadsheets with Calc

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

NOTE

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

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

3.3.1 Using Formatting and Styles in Calc

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

Creating a Style

1 Click *Format → Styles and Formatting*.

2 In the *Formatting and Styles* window, click either the *Cell Styles* or the *Page Styles* icon.

3 Right-click in the *Formatting and Styles* window, then click *New*.

4 Specify a name for your style and use the various tabs to set the desired formatting options.

5 Click *OK*.

Modifying a Style

1 Click *Format → Styles and Formatting*.

2 In the *Formatting and Styles* window, click either the *Cell Styles* or the *Page Styles* icon.

3 Right-click the name of the style you want to change, then click *Modify*.

4 Change the desired formatting options.

5 Click OK.

3.3.2 Using Templates in Calc

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

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

Creating a Template

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

To create a template:

1 Click *File → New → Spreadsheet*.

2 Create the styles and content that you want to use in any spreadsheet that uses this template.

3 Click *File → Templates → Save*.

4 Specify a name for the template.

5 In the *Categories* box, click the category you want to place the template in.

The category is the folder where the template is stored.

6 Click *OK*.

3.4 Using Presentations with Impress

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

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

3.4.1 Creating a Presentation

1 Click *File → New → Presentation*.

2 Select the option to use for creating the presentation.

There are two ways to create a presentation:

- Create an empty presentation

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

- Create a presentation from a template

  Opens Impress with your choice of template. Use this option to create a new presentation with a predesigned OpenOffice.org template or a template you've created or installed yourself, such as your company's presentation template. Impress uses styles and templates the same way other OpenOffice.org modules do. See Section 3.2.4, "Using Templates to Format Documents" (page 94) for more information about templates.

3.4.2 Using Master Pages

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

- Slide master

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

- Notes master

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

Creating a Slide Master

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

1 Start Impress, then create a new empty presentation.

2 Click *View → Master → Slide Master*.

This opens the current slide master in Master View.

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

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

5 Click *Close Master View* or *View → Normal* to return to Normal View.

TIP

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

Applying a Slide Master

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

1 Open your presentation, then click *View → Master → Slide Master*.

2 (Optional) If you want to apply the slide master to multiple slides, but not to all slides, select the slides that you want to use that slide master.

To select multiple slides, 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 2.0 introduces a new 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 108).

3.5.1 Creating a Database Using Predefined Options

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

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

Creating the Database

First, create the database.

1 Click *File → New → Database*.

2 Select *Create a new database*, 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 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 108) 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 108) 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 2.0 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 (oooauthors.org/en/authors/userguide2/migration/OtherMSOFiles_25_June_PK.sxw)	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

Kontact: E-Mailing and Calendaring

<div align="right">

4

</div>

Kontact combines the functionality of a number of KDE applications into a convenient, single interface for personal information management. These applications include KMail for e-mail, KOrganizer for the calendar, KAddressbook for contacts, and KNotes for notes. It is also possible to sync data with external devices, such as a PalmPilot or other handheld device. Kontact integrates easily with the rest of the KDE desktop and connects to a variety of groupware servers. It includes extra features, such as spam and virus filtering and an RSS reader.

Start Kontact from the main menu. Alternatively, enter `kontact` in a command line or in the *Run Command* dialog. You can also open the individual components instead of the combined application if you only need partial functionality.

4.1 Kontact Overview

The default window view, which shows the *Summary*, is shown in Figure 4.1, "The Kontact Window Showing the Summary" (page 112). Use the buttons in the left section to access the different components.

The *Summary* provides basic information, including upcoming birthdays and to-dos and the number of new mail messages. The news section can access RSS feeds to provide updated news of interest to you. Use *Settings* → *Configure Summary View* to configure the information displayed.

Figure 4.1   *The Kontact Window Showing the Summary*
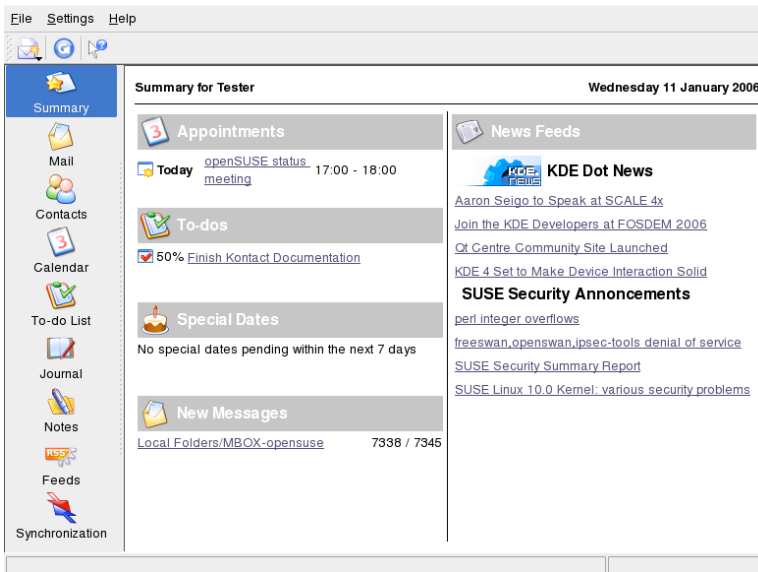
4.1.1 Mail

The folder area to the left contains a list of your mail folders (mail boxes) indicating the total number of messages and how many are still unread. To select a folder, simply click it. The messages in that folder appear in the top right frame. The number of messages in that folder is also shown in the status bar at the bottom of the application window.

The subject, sender, and time of receipt of each message are listed in the header area to the right. Click a message to select it and display it in the message window. Sort the messages by clicking one of the column headers (subject, sender, date, etc.). The contents of the currently selected message are displayed in the message frame of the window. Attachments are depicted as icons at the end of the message, based on the MIME type of the attachment, or they can be displayed inline.

Messages can be marked with different status flags. Change the status with *Message → Mark Message*. You can use this feature to assign a status to a message, such as important or ignored. For example, you can highlight important messages that you do

not want to forget. Display only messages with a certain status using *Status* in the search bar.

4.1.2 Contacts

The upper left frame of this component shows all addresses in the currently activated address books. The lower left frame lists your address books and shows whether each one is currently active. The right frame shows the currently selected contact. Use the search bar at the top to find a particular contact.

4.1.3 Calendar

The calendar view is divided into a number of frames. By default, view a small calendar of this month and a week view of the current week. Also find a list of to-dos, a detailed view of the current event or to-do, and a list of calendars with the status of each. Select a different view from the toolbar or the *View* menu.

4.1.4 To-Do List

To-do List shows your list of tasks. Click the field at the top to add a new item to the list. Right-click in a column of an existing item to make changes to the value in that column. An item can be broken into several subitems. Right-click and select *New Sub-to-do* to create a subitem. You can also assign to-dos to other people.

4.1.5 Journal

The *Journal* provides a place for your reflections, occurences, or experiences. Choose a date in the calendar frame and click *Add Journal Entry* to add a new entry. If a journal entry already exists for the chosen date, edit it in the right frame.

4.1.6 Notes

Use the Notes component to keep sticky notes to yourself. If you are using KDE, use the KNote icon in the system tray to make your notes visible on the desktop.

4.1.7 Feeds

The *Feeds* window is divided into three frames—a tree view with RSS feeds on the left, an article list on the top right, and the article view on the bottom right side. Click a feed in the tree view to display it. Right-click a feed to update, edit, or delete it. Right-click a folder in the tree view to open a menu where you can add a new feed or manipulate existing feeds within this folder.

4.2 Mail

Kontact uses KMail as its e-mail component. To configure it, open the mail component then select *Settings → Configure KMail*. KMail is a fully-featured e-mail client that supports a number of protocols. *Tools* contains several useful tools for managing unwanted e-mails. Use *Find* to perform a detailed search for messages. *Anti-Spam Wizard* can help manage tools for filtering unwanted commercial e-mails. *Anti-Virus Wizard* helps manage e-mail virus scanners. These two wizards work with external spam and virus software. If the options are disabled, install additional packages for protection against spam and viruses.

Figure 4.2   *The Kontact Mail Component*
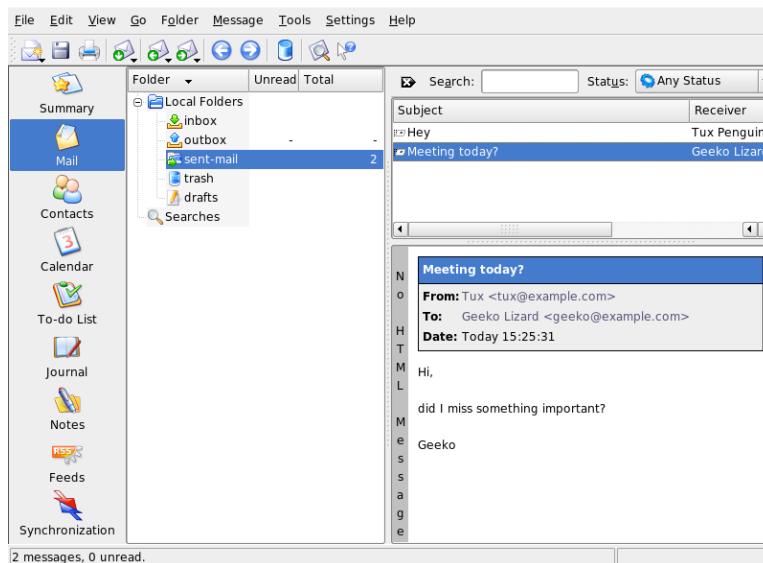
4.2.1 Configuring Identities and Accounts

Kontact can manage multiple e-mail accounts, such as your private e-mail address and your business address. When writing an e-mail, select one of the identities previously defined by clicking *View → Identity*. To create a new identity profile, select *Settings → Configure KMail* then *Identities → Add*. In the dialog that opens, give the new identity a name, such as "private" or "office." Click *OK* to open a dialog in which to enter additional information. You can also assign an identity to a folder so that, when replying to a message in that folder, the assigned identity is selected.

Under the *General* tab, enter your name, organization, and e-mail address. Under *Cryptography*, select your keys to send digitally signed or encrypted messages. For the encryption features to work, first create a key with KGpg, described in Chapter 10, *Encryption with KGpg* (page 185).

Under *Advanced*, you can enter a default reply-to and a default blind carbon-copy address, choose a dictionary, select the folders for drafts and sent messages, and define how messages should be sent. Under *Signature*, decide if and how each of your messages should be signed with an extra block of text at the end. For example, you might sign each e-mail with your contact information. To activate this option, select *Enable Signature* and decide whether to obtain the signature from a file, an input field, or the output of a command. With *Picture*, you can specify the path to a small (48x48 pixel) monochrome icon to display in all your mails if the recipient's software supports this feature. When you are finished with all your identity settings, confirm with *OK*.

The settings under *Accounts* decide how Kontact receives and sends e-mail. There are two tabs, one each for sending and for receiving mail. Many of these settings vary depending on the system and network in which your mail server is located. If you are not sure about the settings or items to select, consult your ISP or system administrator.

To create outgoing mail boxes under the *Sending* tab, click *Add*. Choose between the SMTP and sendmail transport types. SMTP is the correct choice in most cases. After making this selection, a window appears in which to enter SMTP server data. Provide a name and enter the server address (as given to you by your ISP). If the server wants you to authenticate yourself, enable *Server requires authentication*. Security settings are under the *Security* tab. Specify your preferred encryption method here.

Make settings for receiving e-mail under the *Receiving* tab. Use *Add* to create a new account. Choose between different methods for retrieving mail, such as local (stored

in Mbox or Maildir format), POP3, or IMAP. Make the settings appropriate for your server.

4.2.2 Importing E-Mail from Other Mail Programs

To import e-mail from other applications, select *Tools* → *Import Messages* from the mail view in Kontact. It currently features import filters for Outlook Express, the mbox format, e-mail text format, Pegasus Mail, Opera, Evolution, and more. The import utility can also be started separately with the command kmailcvt.

Select the corresponding application and confirm with *Continue*. A file or a folder must be provided, depending on the selected type. Kontact then completes the process.

4.2.3 Creating Messages

To compose new messages, select *Message* → *New Message* or click the corresponding icon in the toolbar. To send messages from different e-mail accounts, select one of the identities as described in Section 4.2.1, "Configuring Identities and Accounts" (page 115). In *To*, enter an e-mail address or part of a name or address in your address book. If Kontact can match what you enter to something in the address book, a selection list opens. Click the desired contact or complete your input if none matches. To select directly from the address book, click the ... button next to the Address field.

To attach files to your message, click the paperclip icon and select the file to attach. Alternatively, drag a file from the desktop or another folder to the *New Message* window or select one of the options in the *Attach* menu. Normally, the format of a file is recognized correctly. If the format is not recognized, right-click the icon. From the menu that appears, select *Properties*. Set the format and filename in the next dialog and add a description. In addition, decide whether the attached file should be signed or encrypted.

When you are finished composing your message, send it immediately with *Message* → *Send* or move it to the outbox with *Message* → *Queue*. If you send the e-mail, the message is copied to sent-mail after having been sent successfully. Messages moved to the outbox can be edited or deleted.

4.2.4 Encrypted E-Mail and Signatures

To encrypt your e-mail, first generate a key pair as described in Chapter 10, *Encryption with KGpg* (page 185). To configure the details of the encryption procedure, select *Settings → Configure KMail → Identities* to specify the identity under which to send encrypted and signed messages. Then press *Modify*. After confirming with *OK*, the key should be displayed in the corresponding field. Close the configuration dialog with *OK*.

4.2.5 Folders

Message folders help organize your messages. By default, they are located in the directory `~/.kde/share/apps/kmail/mail`. When starting KMail for the first time, the program creates several folders. `inbox` is where new messages fetched from a server are initially placed. `outbox` is used for temporary storage of messages queued for sending. `sent-mail` is for copies of messages sent. `trash` contains copies of all e-mails deleted with Del or *Edit → Delete*. `drafts` is where you can save unfinished messages. If you are using IMAP, the IMAP folders are listed below the local folders. Each incoming mail server has its folders in the Folder list.

If you want to organize your messages in additional folders, create new folders by selecting *Folder → New Folder*. This opens a window in which to specify the name and format of the new folder.

Right-click the folder for a context menu offering several folder operations. Click *Expire* to specify the expiration date for read and unread messages, what should happen with them after expiration, and whether expired messages should be deleted or moved to a folder. If you intend to use the folder to store messages from a mailing list, set the necessary options under *Folder → Mailing List Management*.

To move one or several messages from one folder to another, drag them from the upper window and drop them into the appropriate folder in the left window. Messages can also be moved by highlighting the messages then pressing M or selecting *Message → Move to*. In the list of folders that appears, select the folder to which to move your messages.

4.2.6 Filters

Filters are a convenient method of automatically processing incoming mail. They use aspects of the mail, such as sender or size, to move mail to certain folders, delete unwanted mails, bounce mails back to the sender, or perform a number of other actions.

Setting Up a Filter

To create a filter from scratch, select *Settings → Configure Filters*. To create a filter based on an existing message, right-click the desired message then select *Create Filter* and the desired filter criteria.

Select the match method for filter criteria (all or any). Then select criteria that applies only to the desired messages. In *Filter Actions*, set what the filter should do to the messages that meet the criteria. *Advanced Options* provides control over when the filter is applied and whether additional filters should be considered for these messages.

Applying Filters

Filters are applied in the order listed in the dialog accessed with *Settings → Configure Filters*. Change the order by selecting a filter and clicking the arrow buttons. Filters are only applied to new incoming messages or sent messages as specified in the filter's advanced options. To apply filters to existing messages, right-click the desired messages and choose *Apply Filter* and the desired filter.

If your filters do not act as expected, monitor them with *Tools → Filter Log Viewer*. When logging is enabled in this dialog, it shows how messages are processed by your filters and can help locate the problem.

4.3 Contacts

The contacts component uses KAddressBook. Configure it with *Settings → Configure KAddressBook*. To search for a particular contact, use the search bar. With *Filter*, select to display only contacts in a certain category. Right-click a contact to open a menu in which to select from a variety of options, such as sending the contact information in an e-mail.

Figure 4.3 *The Kontact Address Book*
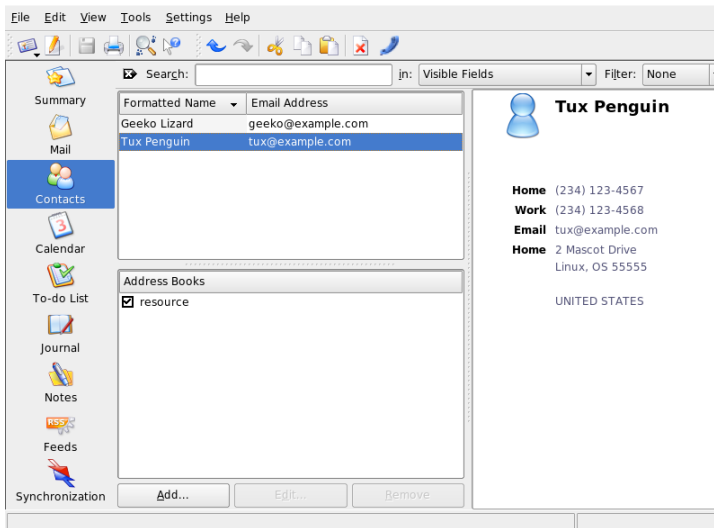
4.3.1 Adding Contacts

To add a contact with the name and e-mail address from an e-mail, right-click the address in the mail component and select *Open in Address Book*. To add a new contact without using an e-mail, select *File → New Contact* in the address component. Both methods open a dialog in which to enter information about the contact.

In the *General* tab, enter basic contact information, such as name, e-mail addresses, and telephone numbers. Categories can be used to sort addresses. *Details* contains more specific information, such as birthday and spouse's name.

If your contact uses an instant messenger, you can add these identities in *IM Addresses*. If you do this and have Kopete or another KDE chat program running at the same time as Kontact, view status information about these identities in Kontact. In *Crypto Settings*, enter the contact's encryption data, such as public key.

Misc has additional information, such as a photograph and the location of the user's Free/Busy information. Use *Custom Fields* to add your own information to the contact or address book.

Contacts can also be imported in a variety of formats. Use *File → Import* and select the desired format. Then select the file to import.

4.3.2 Making a Distribution List

If you frequently send e-mail messages to the same group of people, a distribution list enables you to store multiple e-mail addresses as a single contact item so that you do not need to enter each name individually in every e-mail you send to that group. First, click *Settings → Show Extension Bar → Distribution List Editor*. In the new section that appears, click *New List*. Enter a name for the list then click *OK*. Add contacts to the list by dragging them from the address list and dropping them in the distribution list window. Use this list like you would an individual contact when creating an e-mail.

4.3.3 Adding Address Books

IMPORTANT: Groupware Address Books

The best way to add groupware resources is with the Groupware Wizard, a separate tool. To use it, close Kontact then run `groupwarewizard` in a command line or from the Office group of the KDE menu. Select the server type, such as SLOX, GroupWise, or Exchange, from the list offered then enter the address and authentication data. The wizard then adds the available resources to Kontact.

Kontact can access multiple address books, such as shared ones offered by Novell GroupWise or an LDAP server. Select *Settings → Show Extension Bar → Address Books* to view the current address books. Press *Add* to add one then select the type and enter the required information.

The check boxes in front of the books show the activation status of each address book. To prevent the display of a book without deleting it, uncheck it. *Remove* deletes the selected book from the list.

4.4 Calendar

Kontact uses KOrganizer as its calendar component. To configure it, use *Settings →
Configure KOrganizer*. With the calendar, enter appointments and schedule meetings
with others. If desired, you can be reminded of upcoming events. You can also import,
export, and archive calendars with the options in *File*.

Figure 4.4   *The Kontact Calendar*
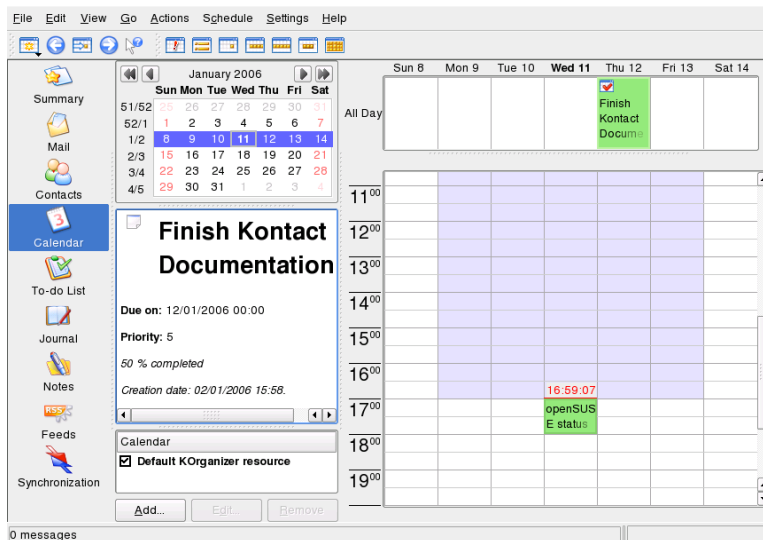
4.4.1 Scheduling an Event

Add a new event or meeting with *Actions → New Event*. Enter the desired details. Under
Reminder, specify the exact time (minutes, hours, or days in advance) when the attendees
should be reminded of the event. If an event recurs, specify the appropriate interval.
Another way to create an event at a specific point in the calendar is to double-click the
corresponding field in one of the program's calendar views. This opens the same dialog
window as that available from the menu. Alternatively, select a time range in the Cal-
endar view and right-click.

Specify the attendees of an event by entering their data manually in the dialog or by
inserting data from the address book. To enter data manually, select *New*. To import

data from the address book, click *Select Addressee* then select the corresponding entries from the dialog. To schedule the event based on the participants' availability, go to *Free/Busy* and click *Pick Date*.

Use the *Recurrence* tab to configure an event that happens on a regular basis. *Attachments* can be convenient for linking other information with the event, such as an agenda for a meeting.

4.4.2 Adding Calendars

IMPORTANT: Groupware Calendars

The best way to add groupware resources is with Groupware Wizard, a separate tool. To use it, close Kontact then run `groupwarewizard` in a command line or from the Office group of the KDE menu. Select the server type, such as SLOX, GroupWise, or Exchange, from the list offered then enter the address and authentication data. The wizard adds the available resources to Kontact.

The calendar module can connect to multiple calendars simultaneously. This is useful, for example, to combine a personal calendar with an organizational one. To add a new calendar, click *Add* then select the calendar type. Complete the necessary fields.

The check boxes in front of the calendars show the activation status of each. To prevent the display of a calendar without deleting it, uncheck it. *Remove* deletes the selected calendar from the list.

4.5 Syncing Data with a Handheld

Kontact is designed so its data can be synced with handheld devices, such as a Palm. View information about the status of KPilot in the summary. Refer to Chapter 6, *Synchronizing a Handheld Computer with KPilot* (page 143) for information about configuring and using KPilot.

4.6 Kontact for GroupWise Users

If you are used to working in GroupWise, you should have very little trouble adjusting to Kontact. The two programs share many concepts and provide many of the same services. This section discusses notable terminology differences, as well as some tips to help GroupWise users make the most of Kontact.

4.6.1 Terminology Differences

The following table lists some key terminology differences between Kontact and GroupWise.

Table 4.1 *Kontact and GroupWise Terminology Differences*

GroupWise	Kontact
Appointments	Events
Busy search	Free/Busy
Notes	Journal entries
Posted, nonposted items	An event without attendees is posted. If an event has attendees, it is a Sent item.
Tasks	To-dos

4.6.2 Tips for GroupWise Users

This section contains hints to help GroupWise users work with some of the differences between GroupWise and Kontact.

Contact Information

You can add your GroupWise Messenger and e-mail contacts to your Kontact contact information. Then you can create an e-mail or open an instant messaging session with that contact by right-clicking the name in the Contact view.

Color Coding

It is helpful to color code GroupWise items, as well as items from other sources. Color coding makes it easy to scan your e-mails, contacts, and other information for items from a particular source.

Inviting Attendees to Events

Unlike GroupWise, Kontact does not automatically enter you as an attendee for events you schedule. Make sure that you remember to invite yourself.

4.7 For More Information

Kontact includes help for itself and its various components. Access it with *Help → Kontact Handbook.* The project's Web page, `http://www.kontact.org`, is also informative.

# GroupWise Linux Client: E-Mailing and Calendaring

5

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

5.1 Getting Acquainted with the Main GroupWise Window

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

Figure 5.1   *Groupwise Main Window*
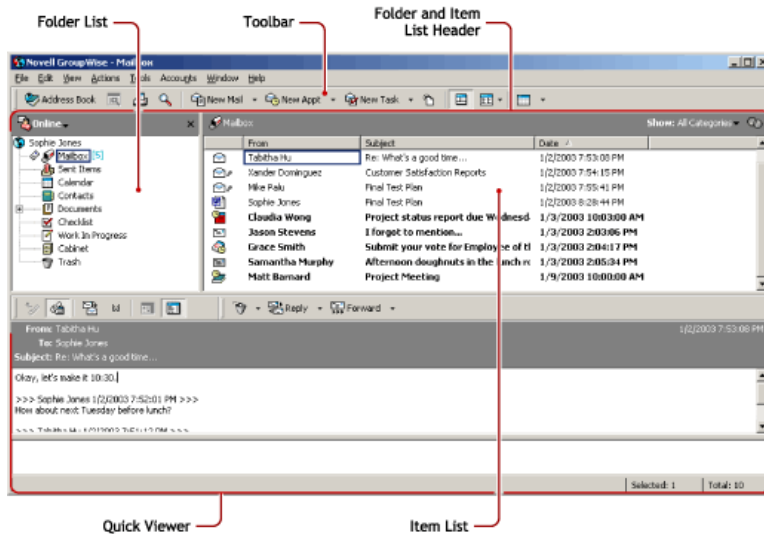
You can open more than one Main Window in GroupWise by clicking Window, then clicking New Main Window. This is useful if you proxy for another user. You can look at your own Main Window and the Main Window belonging to the person you are proxying for. You might also want to open a certain folder in one window and look at your Calendar in another. You can open as many Main Windows as your computer's memory allows.

The basic components of the Main Window are explained below.

5.1.1 Toolbar

The toolbar lets you quickly accomplish common GroupWise tasks, such as opening the Address Book, sending mail messages, and finding an item. For information about the toolbar, see Section 5.4, "Using the Toolbar" (page 136).

5.1.2 Folder and Item List Header

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

5.1.3 Folder List

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

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

- Section "User Folder" (page 127)

- Section "Mailbox Folder" (page 128)

- Section "Sent Items Folder" (page 128)

- Section "Calendar Folder" (page 128)

- Section "Contacts Folder" (page 129)

- Section "Checklist Folder" (page 129)

- Section "Documents Folder" (page 130)

- Section "Trash Folder" (page 131)

- Section "Shared Folders" (page 131)

User Folder

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

Mailbox Folder

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

Sent Items Folder

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

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

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

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

Calendar Folder

The Calendar folder ▦ shows several calendar view options.

Contacts Folder

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

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

Your proxies never see your Contacts folder.

Checklist Folder

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

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

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

Checklist Folder	Task List Folder
This folder contains the following items: • Items you have moved to this folder • Items you have posted to this folder • Items that are part of a checklist that you have created in another folder	No items actually reside in this folder. This folder is a Find Results folder, which means a Find is performed when you click the folder and the results of the Find (all scheduled tasks) are displayed in the folder. If you delete an item from this folder, the original item remains in its original folder and redisplays the next time you open this folder.

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

Documents Folder

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

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

Cabinet Folder

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

Junk Mail Folder

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

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

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

Trash Folder

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

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

Shared Folders

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

5.1.4 Item List

The Item List on the right side of the Main Window displays your mail and phone messages, appointments, reminder notes, tasks, and document references. You can sort the Item List by clicking a column heading. To reverse the sort order, click the column heading a second time. For information about the icons used with different items, see Section 5.3.2, "Icons Appearing Next to Items in Your Mailbox and Calendar" (page 134).

5.1.5 QuickViewer

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

5.2 Using Different GroupWise Modes

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

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

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

5.2.1 Online Mode

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

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

5.2.2 Caching Mode

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

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

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

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

5.3 Understanding Your Mailbox

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

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

5.3.1 Bolded Items in Your Mailbox

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

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

5.3.2 Icons Appearing Next to Items in Your Mailbox and Calendar

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

Table 5.3   *Icon Descriptions*

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

Icon	Description
✎	Draft item.
↱	Appears next to an item you have sent.
←	Appears next to an item you have replied to.
→	Appears next to an item you have forwarded.
↳	Appears next to an item you have delegated.
⇅	Appears next to an item you have replied to and forwarded
⇅	Appears next to an item you have replied to and delegated.
⇅	Appears next to an item you have forwarded and delegated.
⇅	Appears next to an item you have replied to, forwarded, and delegated
⊙	Posted item.
#	Specific version of a document.
★	Official version of a document.
▣ ▣ ▣	Unopened mail message with a low, standard, or high priority.
▢ ▢ ▢	Opened mail message with a low, standard, or high priority.
▤ ▤ ▤	Unopened appointment with a low, standard, or high priority.
▤ ▤ ▤	Opened appointment with a low, standard, or high priority.
▥ ▥ ▥	Unopened task with a low, standard, or high priority.
▥ ▥ ▥	Opened task with a low, standard, or high priority.

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

5.4 Using the Toolbar

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

5.5 Using Shortcut Keys

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

Table 5.4   *Shortcut Keys*

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

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

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

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

5.6 Learning More

You can learn more about GroupWise from the following resources:

- Section 5.6.1, "Online Help" (page 141)

- Section 5.6.2, "GroupWise 7 Documentation Web Page" (page 141)

- Section 5.6.3, "GroupWise Cool Solutions Web Community" (page 141)

5.6.1 Online Help

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

5.6.2 GroupWise 7 Documentation Web Page

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

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

5.6.3 GroupWise Cool Solutions Web Community

At GroupWise Cool Solutions, you'll find tips, tricks, feature articles, and answers to
frequent questions. In the Main Window, click *Help → Cool Solutions Web Community*
or go to `http://www.novell.com/coolsolutions/gwmag`.

Synchronizing a Handheld Computer with KPilot

6

Handheld computers are in widespread use among users who need to have their schedules, to-do lists, and notes with them everywhere they go. Often users want the same data available on both the desktop and the portable device. This is where KPilot comes in—it is a tool to synchronize data on a handheld with that used by the KDE applications KAddressBook, KOrganizer, and KNotes, which are part of Kontact.

The main purpose of KPilot is to allow sharing of data between the applications of a handheld computer and their KDE counterparts. KPilot does come with its own built-in memo viewer, address viewer, and file installer, but these cannot be used outside the KPilot environment. Independent KDE applications are available for all functions except the file installer.

For communication between the handheld and the different desktop programs, KPilot relies on conduits. KPilot itself is the program that oversees any data exchange between the two computer devices. Using a particular function of the handheld on your desktop computer requires that the corresponding conduit is enabled and configured. For the most part, these conduits are designed to interact with specific KDE programs, so in general they cannot be used with other desktop applications.

The time synchronization conduit is special in that there is no user-visible program for it. It is activated in the background with each sync operation, but should only be enabled on computers that use a network time server to correct their own time drift.

When a synchronization is started, the conduits are activated one after another to carry out the data transfer. There are two different sync methods: a HotSync operation only synchronizes the data for which any conduits have been enabled while a backup operation performs a full backup of all data stored on the handheld.

Some conduits open a file during a sync operation, which means that the corresponding program should not be running at that time. Specifically, KOrganizer should not be running during a sync operation.

6.1 Conduits Used by KPilot

The conduits used by KPilot can be enabled and configured after selecting *Settings →Configure KPilot*. The following is a list of some important conduits:

Addressbook
>
> This conduit handles the data exchange with the handheld's address book. The KDE counterpart for managing these contacts is KAddressBook. Start it from the main menu or with the command kaddressbook.

KNotes/Memos
>
> This conduit allows you to transfer notes created with KNotes to the handheld's memo application. Start the KDE application from the main menu or with the command knotes.

Calendar (KOrganizer)
>
> This conduit is responsible for syncing the appointments (events) of the hendheld. The desktop equivalent is KOrganizer.

ToDos (KOrganizer)
>
> This conduit is responsible for syncing to-do items. The desktop counterpart is KOrganizer.

Time Synchronization
>
> Enabling this conduit adjusts the handheld's clock to that of the desktop computer during each sync operation. This is only a good idea if the clock of the desktop computer itself is corrected by a time server at fairly frequent intervals.

Figure 6.1 *Configuration Dialog with the Available Conduits*
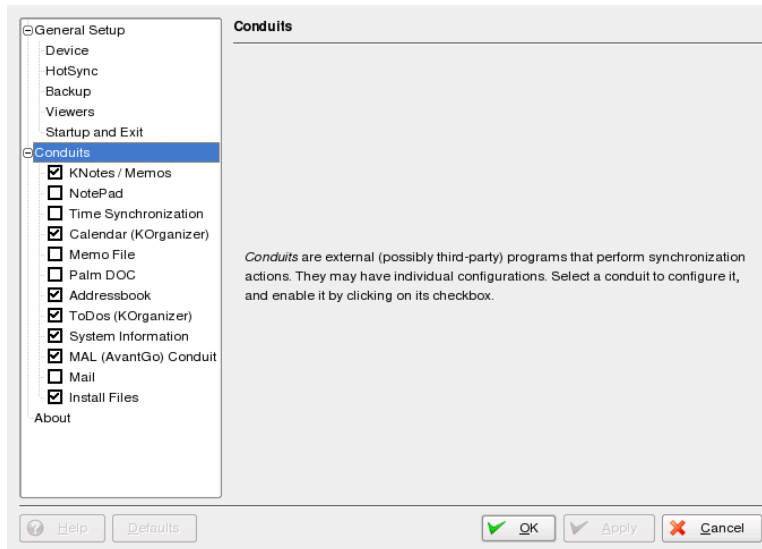
6.2 Configuring the Handheld Connection

To be able to use KPilot, first set up the connection with the handheld computer. The configuration depends on the type of cradle (docking unit) used with the handheld. There are two types of these: USB cradles or cables and serial cradles or cables.

6.2.1 Configuring the Connection from within KPilot

The easiest way to set up the connection is by using the configuration assistant. Do the following:

1 Select *Settings* → *Configuration Wizard* to start the assistant.

2 Enter your username and the name of the device to which the handheld is connected.

3 Choose from one of the following options:

- Select *Autodetect Handheld & Username* if you want the assistant to detect your handheld. If the autodetection fails, refer to Section 6.2.2, "Creating a /dev/pilot Link" (page 146).

- Click *Next* to configure it manually.

4 Specify the applications that should be used for synchronization. You can choose among the KDE application suite (default), Evolution, and none. After selecting, close the window with *Finish*.

6.2.2 Creating a /dev/pilot Link

The setup of the connection with a serial handheld cradle is different from that of a USB cradle. Depending on which cradle is used, you may or may not need to create a symbolic link named /dev/pilot.

USB

Normally, a USB cradle is autodetected and there should be no need to create the symbolic link mentioned.

Serial

With a serial cradle, you need to know to which serial port it is actually connected. Serial devices are named /dev/ttyS?, starting from /dev/ttyS0 for the first port. To set up a cradle connected to the first serial port, enter the command:

```
ln -s /dev/ttyS0 /dev/pilot
```

6.3 Configuring the KAddressBook Conduit

Initially, it should be sufficient to enable the KAddressBook conduit without changing any of the defaults. After the data has been synchronized for the first time, configure

the details: what to do in case of conflicts, the way in which backup databases are saved, and how certain fields stored on the handheld should be assigned to the fields expected by KAddressBook.

6.4 Managing To-Do Items and Events

On the KDE desktop, to-dos (tasks) and events (appointments) are managed with KOrganizer. Start the application from the main menu, with the command `korganizer`, or as part of Kontact. After enabling the calendar and the to-do conduit of KPilot, set some configuration options before using them.

Figure 6.2 *KPilot Configuration*
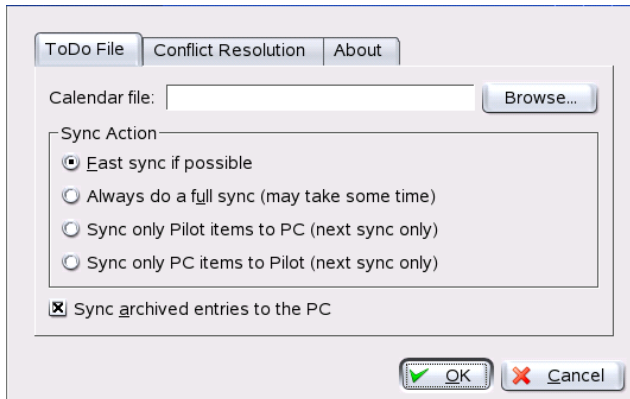
KOrganizer stores its files in the directory `~/.kde/share/apps/korganizer`. However, given that the directory `.kde` begins with a dot, it may not be shown by the file selection dialog. In this case, enter the complete path manually or explicitly toggle the display of hidden files (dot files) in the file selection dialog. The default shortcut for this is `F8`.

After opening the directory `~/.kde/share/apps/korganizer`, select a file that can be used as a calendar file by KOrganizer. In this example, this is the file `palm.ics`. In the case of a user called `tux`, the complete path and filename would be `/home/tux/.kde/share/apps/korganizer/palm.ics`, as shown in Figure 6.3, "Dialog Showing the Path to a KOrganizer Calendar File" (page 148).

Figure 6.3 *Dialog Showing the Path to a KOrganizer Calendar File*
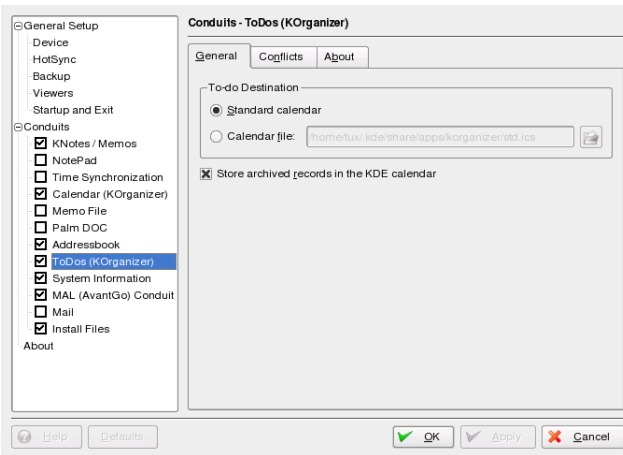
KOrganizer should not be running when data is being exchanged with the handheld. Otherwise KPilot fails to carry out the sync operation.

6.5 Working with KPilot

Synchronizing the data of KDE applications with those of the handheld computer is easy. Simply start KPilot then press the HotSync button on the cradle or cable to initiate the sync operation.

Figure 6.4   *The Main Window of KPilot*
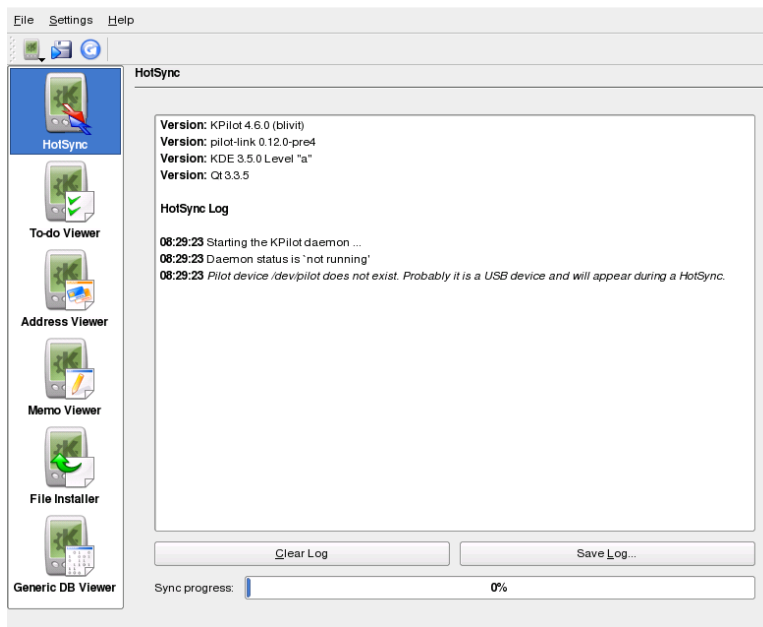
6.5.1 Backing Up Data from the Handheld

To do a full backup, select *File → Backup*. The backup is performed during the next sync operation. After that, switch back by selecting *File → HotSync* from the menu. Otherwise, the time-consuming full backup will be performed again during the next sync operation.

After a full backup, all copies of the handheld's programs and databases are found in `~/.kde/share/apps/kpilot/DBBackup/USERNAME`, where *USERNAME* is the name of the user registered on the handheld.

The two built-in KPilot viewers can be used for a quick lookup of addresses or memos, but they are not designed to actually manage this data. The KDE applications mentioned above are much more suited for these tasks.

6.5.2 Installing Programs on the Handheld

The *File Installer* module is an interesting and useful tool for the installation of handheld programs. These programs normally have the extension `.prc` and they are ready to start immediately after uploading them to the handheld. Before using such add-on programs, read their licenses as well as the instructions included.

Instant Messaging with Kopete

7

Kopete is an online messenger application allowing multiple partners connected to the Internet to chat with each other. Kopete currently supports all common messenger protocols, such as ICQ, MSN, Yahoo, SMS, Jabber, and IRC.

7.1 Configuring Kopete

Configure Kopete by entering your personal user data. Click *Settings* → *Configure Kopete*. With *Accounts*, enter your user data. You must register with a provider offering instant messaging services before using such service. Click *New* to open a configuration assistant that can assist you in completing your user profile.

The next step lists the available messaging services. Select the service with which you have registered and click *Continue*. Then enter the user data received on registration with the messaging service. This usually consists of the nickname or e-mail address and a password. Complete the configuration of the messenger account by clicking *Finish*.

Figure 7.1 *Kopete Configuration Panels*
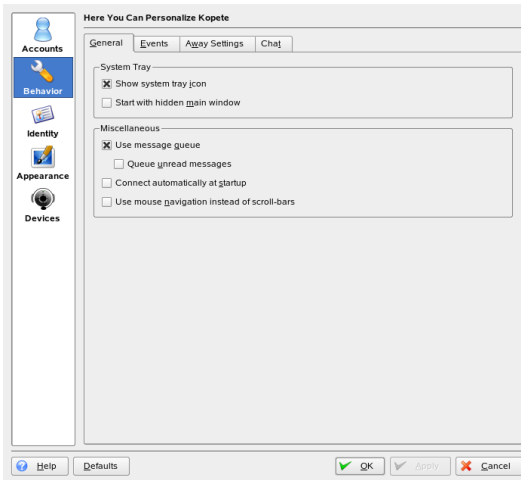
The next item in the configuration dialog is *Appearance*. It influences how Kopete is displayed. *Emoticons* provides a selection of various types of smileys.

Use *Chat window* and *Colors & Fonts* to adjust the appearance of the chat windows for communication with other participants. Choose from the classic themes of the corresponding providers or create a custom theme by adjusting the font or color to your preferences.

7.2 Adding Contacts

Add contacts to chat with them. If you have already created an account on another PC, this data is imported and automatically added to your contact list. To create a contact entry manually, click *File → Add Contact*. A new assistant appears to help with creation. However, you must be online and connect with Kopete to the selected messaging service to add a contact to your list.

7.3 Adding Groups

Access this with *File → Create New Group*. Name the group and confirm this with *OK*. A new folder appears in the contact list that can be used to store the desired contacts.

Drag and drop contacts into the desired folder. Grouping contacts can give a better overview.

Figure 7.2   *The Main Kopete Window*
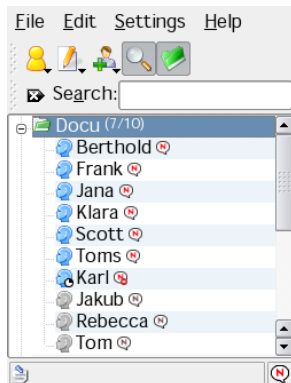
Empty groups can be disabled by activating *Settings → Hide Empty Groups*.

7.4 Using Kopete

It is necessary to establish a connection to the Internet to be able to chat with other participants. When this is done, you should set your status by clicking *File → Set Status → Online*. This establishes a connection between Kopete and the selected messaging service. After the successful login, you are visible to others.

The main application windows features a list of contacts. You must have contacts to chat with others (see Section 7.2, "Adding Contacts" (page 152) for more information). When you right-click a contact marked as online, a menu opens with various options. Send that person a message or start a chatting session. A chat allows invitation of additional participants for real-time discussion. Connection to all participants is closed when the creator of the chat session closes it.

If you want to see your former chatting session, select a contact and go to *Edit → View History*. This menu item opens a dialog where you can search and view your chatting sessions with this person.

You can view other options by right-clicking a username. A pop-up menu opens. An important option is *Start Chat* to start a chatting session. With *Rename Contact* and

Remove Contact, you can run the respective action. The pop-up menu also contains a submenu item with the username where you can block the user or get user information.

Using Voice over IP

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

Linphone is a small Web phone application for your Linux desktop. It allows you to make two-party calls over the Internet. There is no need for special hardware items: a standard workstation with a properly configured sound card, microphone, and speakers or headphones is all you need to get started with Linphone.

8.1 Configuring Linphone

Before you start using Linphone there are some basic decisions to make and some configuration tasks to complete. First, determine and configure the run mode of Linphone, determine the connection type to use, then start the Linphone configuration (*Go → Preferences*) to make the necessary adjustments.

8.1.1 Determining the Run Mode of Linphone

Linphone can be run in two different different modes, depending on the type of desktop you run and on its configuration.

Normal Application
> After the Linphone software has been installed, it can be started via the GNOME and KDE application menus or via the command line. When Linphone is not running, incoming calls cannot be received.

GNOME Panel Applet

> Linphone can be added to the GNOME panel. Right-click an empty area in the panel, select *Add to Panel*, and select Linphone. Linphone is then permanently added to the panel and automatically started on login. As long as you do not receive any incoming calls, it runs in the background. As soon as you get an incoming call, the main window opens and you can receive the call. To open the main window to call someone, just click the applet icon.

8.1.2 Determining the Connection Type

There are several different ways to make a call in Linphone. How you make a call and how you reach the other party is determined by the way you are connected to the network or the Internet.

Linphone uses the session initiation protocol (SIP) to establish a connection with a remote host. In SIP, each party is identified by a SIP URL:

```
sip:username@hostname
```

username is your login on your Linux machine and *hostname* the name of the computer you are using. If you use a SIP provider, the URL would look like the following example:

```
sip:username@sipserver
```

username is the username chosen when registering at a SIP server. *sipserver* is the address of the SIP server or your SIP provider. For details on the registration procedure, refer to Section 8.1.5, "Configuring the SIP Options" (page 158) and check the provider's registration documentation. For a list of providers suitable for your purpose, check the Web pages mentioned in Section 8.8, "For More Information" (page 165).

The URL to use is determined by the type of connection you choose. If you chose to call another party directly without any further routing by a SIP provider, you would enter a URL of the first type. If you chose to call another party via a SIP server, you would enter a URL of the second type.

Calling in the Same Network

If you intend to call a friend or coworker belonging to the same network, you just need the correct username and hostname to create a valid SIP URL. The same applies if this

person wants to call you. As long as there is no firewall between you and the other party, no further configuration is required.

Calling across Networks or the Internet (Static IP Setup)

If you are connected to the Internet using a static IP address, anyone who wants to call you just needs your username and the hostname or IP address of your workstation to create a valid SIP URL, as described in Section "Calling in the Same Network" (page 156). If you or the calling party are located behind a firewall that filters incoming and outgoing traffic, open the SIP port (5060) and the RTP port (7078) on the firewall machine to enable Linphone traffic across the firewall.

Calling across Networks or the Internet (Dynamic IP Setup)

If your IP setup is not static—if you dynamically get a new IP address every time you connect to the Internet—it is impossible for any caller to create a valid SIP URL based on your username and an IP address. In these cases, either use the services offered by a SIP provider or use a DynDNS setup to make sure that an external caller gets connected to the right host machine. More information about DynDNS can be found at http://en.wikipedia.org/wiki/Dynamic_DNS.

Calling across Networks and Firewalls

Machines hidden behind a firewall do not reveal their IP address over the Internet. Thus, they cannot be reached directly from anyone trying to call a user working at such a machine. Linphone supports calling across network borders and firewalls by using a SIP proxy or relaying the calls to a SIP provider. Refer to Section 8.1.5, "Configuring the SIP Options" (page 158) for a detailed description of the necessary adjustments for using an external SIP server.

8.1.3 Configuring the Network Parameters

Most of the settings contained in the *Network* tab do not need any further adjustments. You should be able to make your first call without changing them.

NAT Traversal Options

Enable this option only if you find yourself in a private network behind a firewall and if you do not use a SIP provider to route your calls. Select the check box and enter the IP address of the firewall machine in dot notation, for example, 192.168.34.166.

RTP Properties

Linphone uses the real-time transport protocol (RTP) to transmit the audio data of your calls. The port for RTP is set to 7078 and should not be modified, unless you have another application using this port. The jitter compensation parameter is used to control the number of audio packages Linphone buffers before actually playing them. By increasing this parameter, you improve the quality of transmission. The more packages buffered, the greater a chance for "late comers" to be played back. On the other hand increasing the number of buffered packages also increases the latency—you hear the voice of your counterpart with a certain delay. When changing this parameter, carefully balance these two factors.

Other

If you use a combination of VoIP and landline telephony, you might want to use the dual tone multiplexed frequency (DTMF) technology to trigger certain actions, like a remote check of your voice mail just by punching certain keys. Linphone supports two protocols for DTMF transmission, SIP INFO and RTP rfc2833. If you need DTMF functionality in Linphone, choose a SIP provider that supports one of these protocols. For a comprehensive list of VoIP providers, refer to Section 8.8, "For More Information" (page 165).

8.1.4 Configuring the Sound Device

Once your sound card has been properly detected by Linux, Linphone automatically uses the detected device as the default sound device. Leave the value of *Use sound device* as it is. Use *Recording source* to determine which recording source should be used. In most cases, this would be a microphone (micro). To select a custom ring sound, use *Browse* to choose one and test your choice using *Listen*. Click *Apply* to accept your changes.

8.1.5 Configuring the SIP Options

The *SIP* dialog contains all SIP configuration settings.

SIP Port

Determine on which port the SIP user agent should run. The default port for SIP is 5060. Leave the default setting unchanged unless you know of any other application or protocol that needs this port.

Identity

Anyone who wants to call you directly without using a SIP proxy or a SIP provider needs to know your valid SIP address. Linphone creates a valid SIP address for you.

Remote Services

This list holds one or more SIP service providers where you have created a user account. Server information can be added, modified, or deleted at any time. See Adding a SIP Proxy and Registering at a Remote SIP Server (page 159) to learn about the registration procedure.

Authentication Information

To register at a remote SIP server, provide certain authentication data, such as a password and username. Linphone stores this data once provided. To discard this data for security reasons, click *Clear all stored authentification data*.

The *Remote services* list can be filled with several addresses of remote SIP proxies or service providers.

Procedure 8.1 *Adding a SIP Proxy and Registering at a Remote SIP Server*

1 Choose a suitable SIP provider and create a user account there.

2 Start Linphone.

3 Go to *Go → Preferences → SIP*.

4 Click *Add proxy/registrar* to open a registration form.

5 Fill in the appropriate values for *Registration Period*, *SIP Identity*, *SIP Proxy* and *Route*. If working from behind a firewall, always select *Send registration* and enter an appropriate value for *Registration Period*. This resends the original registration data after a given time to keep the firewall open at the ports needed by Linphone. Otherwise, these ports would automatically be closed if the firewall did not receive any more packages of this type. Resending the registration data

is also needed to keep the SIP server informed about the current status of the connection and the location of the caller. For *SIP identity*, enter the SIP URL that should be used for local calls. To use this server also as a SIP proxy, enter the same data for *SIP Proxy*. Finally, add an optional route, if needed, and leave the dialog with *OK*.

8.1.6 Configuring the Audio Codecs

Linphone supports a several codecs for the transmission of voice data. Set your connection type and choose your preferred codecs from the list window. Codecs not suitable for your current connection type are red and cannot be selected.

8.2 Testing Linphone

Check your Linphone configuration using `sipomatic`, a small test program that can answer calls made from Linphone.

Procedure 8.2   *Testing a Linphone Setup*

  1 Open a terminal.

  2 Enter `sipomatic` at the command line prompt.

  3 Start Linphone.

  4 Enter `sip:robot@127.0.0.1:5064` as *SIP address* and click *Call or Answer*.

  5 If Linphone is configured correctly, you will hear a phone ringing and, after a short while, you will hear a short announcement.

If you successfully completed this procedure, you can be sure that your audio setup and the network setup are working. If this test fails, check whether your sound device is correctly configured and whether the playback level is set to a reasonable value. If you still fail to hear anything, check the network setup including the port numbers for SIP and RTP. If any other application or protocol uses the defaults ports for these as proposed by Linphone, consider changing ports and retry.

8.3 Making a Call

Once Linphone is configured appropriately, making a call is straightforward. Depending on the type of call (see Section 8.1.2, "Determining the Connection Type" (page 156) for reference), the calling procedures differ slightly.

1 Start Linphone using the menu or a command line.

2 Enter the SIP address of the other party at the *SIP address* prompt. The address should look like `sip:username@domainname` or `username@hostname` for direct local calls or like `username@sipserver` or `userid@sipserver` for proxied calls or calls using the service of a SIP provider.

3 If using a SIP service provider or a proxy, select the appropriate proxy or provider from *Proxy to use* and provide the authentication data requested by this proxy.

4 Click *Call or Answer* and wait for the other party to pick up the phone.

5 Once you are done or wish to end the call, click *Release or Refuse* and leave Linphone.

If you need to tweak the sound parameters during a call, click *Show more* to show four tabs holding more options. The first one holds the *Sound* options for *Playback level* and *Recording level*. Use the sliders to adjust both volumes to fit your needs.

The *Presence* tab lets you set your online status. This information can be relayed to anyone who tries to contact you. If you are permanently away and wish to inform the calling party of this fact, just check *Away*. If you are just busy, but want the calling party to retry, check *Busy, I'll be back in ... min* and specify how long you will not be reachable. Once you are reachable again, set the status back to the default (*Reachable*). Whether another party can check your online status is determined by the *Subscribe Policy* set in the address book, as described in Section 8.5, "Using the Address Book" (page 162). If any party listed in your address book published their online status, you can monitor it using the *My online friends* tab.

The *DTMF* tab can be used to enter DTMF codes for checking voice mail. To check your voice mail, enter the appropriate SIP address and use the keypad in the *DTMF* tab to enter the voice mail code. Finally, click *Call or Answer* as if you were making an ordinary call.

8.4 Answering a Call

Depending on the run mode selected for Linphone, there are several ways you would notice an incoming call:

Normal Application

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

GNOME Panel Applet

Normally, the Linphone 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 Linphone opens and you hear a ring sound on your headset or speakers.

Once you have noticed an incoming call, just click *Call or Answer* to pick up the phone and start talking. If you do not want to accept this call, click *Release of Refuse*.

8.5 Using the Address Book

Linphone offers to manage your SIP contacts. Start the address book with *Go → Address book*. An empty list window opens. Click *Add* to add a contact.

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. Choose something you easily remember this person as. If you choose to see this person's online status, this name is shown in the *My online friends* tab of the main window.

SIP Address

Enter a valid SIP address for your contact.

Proxy to Use

If needed, enter the proxy to use for this particular connection. In most cases, this would just be the SIP address of the SIP server you use.

Subscribe Policy
> Your subscribe policy determines whether your presence or absence can be tracked by others.

To call any contact from the address book, select this contact with the mouse, click *Select* to make the address appear in the address field of the main window, and start the call with *Call or Answer* as usual.

8.6 Troubleshooting

I try to call someone, but fail to establish a connection.
> There are several reasons why a call could fail:

> Your connection to the Internet is broken.
>> Because Liphone uses the Internet to relay your calls, make sure that your computer is properly connected to and configured for the Internet. This can easily be tested by trying to view a Web page using your browser. If the Internet connection works, the other party might not be reachable.

> The person you are calling is not reachable.
>> If the other party refused your call, you would not be connected. If Linphone is not running on the other party's machine while you are calling, you will not be connected. If the other party's Internet connection is broken, you cannot make the connection.

My call seems to connect, but I cannot hear anything.
> First, make sure that your sound device is properly configured. Do this by launching any other application using sound output, such as a media player. Make sure that Linphone has sufficient permissions to open this device. Close all other programs using the sound device to avoid resource conflicts.

> If the above checks were successful, but you still fail to hear anything, raise the recording and playback levels under the *Sound* tab.

The voice output on both ends sounds strangely clipped.
> Try to adjust the jitter buffer using *RTP properties* in *Preferences → Network* to compensate for delayed voice packages. When doing this, be aware that it increases the latency.

DTMF does not work.

You tried to check your voice mail using the DTMF pad, but the connection could not be established. There are three different protocols used for the transmission of DTMF data, but only two of these are supported by Linphone (SIP INFO and RTP rfc2833). Check with your provider whether it supports one of these. The default protocol used by Linphone is rfc2833, but if that fails you can set the protocol to SIP INFO in *Preferences → Network → Other*. If it does not work with either of them, DTMF transmission cannot be done using Linphone.

8.7 Glossary

Find some brief explanation of the most important technical terms and protocols mentioned in this document:

VoIP

VoIP stands for *voice over Internet protocol*. This technology allows the transmission of ordinary telephone calls over the Internet using packet-linked routes. The voice information is sent in discrete packets like any other data transmitted over the Internet via IP.

SIP

SIP stands for *session initiation protocol*. This protocol is used to establish media sessions over networks. In a Linphone context, SIP is the magic that triggers the ring at your counterpart's machine, starts the call, and also terminates it as soon as one of the partners decides to hang up. The actual transmission of voice data is handled by RTP.

RTP

RTP stands for *real-time transport protocol*. It allows the transport of media streams over networks and works over UDP. The data is transmitted by means of discrete packets that are numbered and carry a time stamp to allow correct sequencing and the detection of lost packages.

DTMF

A DTMF encoder, like a regular telephone, uses pairs of tones to represent the various keys. Each key is associated with a unique combination of one high and one low tone. A decoder then translates these touch-tone combinations back into numbers. Linphone supports DTMF signalling to trigger remote actions, such as checking voice mail.

codec

> Codecs are algorithms specially designed to compress audio and video data.

jitter

> Jitter is the variance of latency (delay) in a connection. Audio devices or connection-oriented systems, like ISDN or PSTN, need a continuous stream of data. To compensate for this, VoIP terminals and gateways implement a jitter buffer that collect the packets before relaying them onto their audio devices or connection-oriented lines (like ISDN). Increasing the size of the jitter buffer decreases the likelihood of data being missed, but the latency of the connection is increased.

8.8 For More Information

For general information about VoIP, check the VoIP Wiki at `http://voip-info.org/tiki-index.php`. For a comprehensive list of providers offering VoIP services in your home country, refer to `http://voip-info.org/wiki-VOIP+Service+Providers+Residential`.

Accessing Network Resources

9

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

Network Browsing
> Your file manager, Konqueror, lets you browse your network for shared resources and services. Learn more about this in Section 9.2, "Accessing Network Shares" (page 169).

Sharing Folders in Mixed Environments
> Using Konqueror, configure your files and folders to share with other members of your network. Make your data readable or writable for users from any Windows or Linux workstation. Learn more about this in Section 9.3, "Sharing Folders in Mixed Environments" (page 170).

Managing Windows Files
> SUSE Linux Enterprise Desktop can be configured to integrate into an existing Windows network. Your Linux machine then behaves like a Windows client. It takes all account information from the Active Directory domain controller, just as the Windows clients do. Learn more about this in Section 9.4, "Managing Windows Files" (page 173).

Configuring and Accessing a Windows Network Printer
> You can configure a Windows network printer through the KDE Control Center. Learn how to configure this in Section 9.5, "Configuring and Accessing a Windows Network Printer" (page 176).

Configuring Shortcuts to Network Folders

By creating shortcuts to remote network folders (FTP, WebDAV, Windows Network Drives, and SSH), interacting with them can be greatly simplified. Learn how to configure this in Section 9.6, "Configuring Shortcuts to Network Folders" (page 178).

Configuring a Small Web Server

If you need a simple way to share information with others, set up a lean Web server. Learn how to do this in Section 9.7, "Configuring and Using a Small Web Server" (page 180).

9.1 General Notes on File Sharing and Network Browsing

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

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

To allow network browsing, your machine needs to keep several network ports open to send and receive network messages that provide details on the network and the availability of shares and services. The standard SUSE Linux Enterprise Desktop 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, Konqueror warns you about your security restrictions not allowing it to query the network.

9.2 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, click the *Network Browsing* icon on your desktop or open Konqueror and enter `remote:/` in the location bar. Konqueror then opens a virtual folder that displays the network share types that you can access. Click a network resource type then click the network share to access. You might be required to authenticate to the resource by providing a username and password.

Figure 9.1 *Network Browsing*
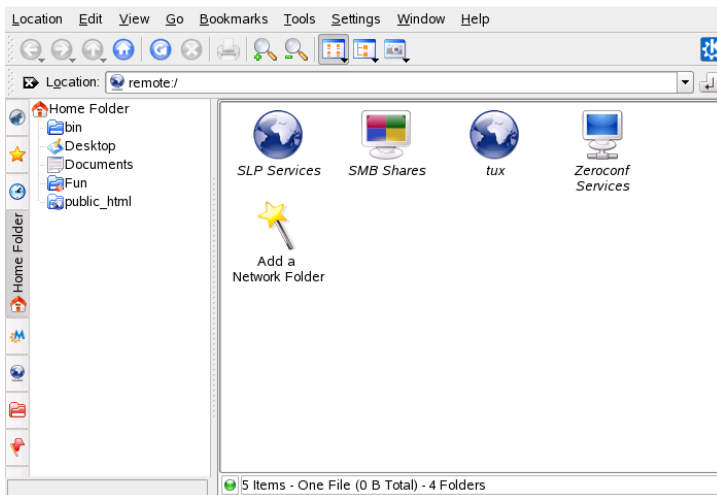
9.3 Sharing Folders in Mixed Environments

Sharing and exchanging documents is a must-have in corporate environments. Konqueror offers you file sharing with Samba, which makes your files and folders available to both Linux and Windows users. To configure Samba file sharing with Konqueror, proceed as follows:

1 Open Konqueror.

2 Right-click the window background then select *Properties* from the context menu.

3 In the *Properties* dialog, click the *Share* tab. When file sharing is not yet generally enabled, you are informed about this on the tab. To enable file sharing or select the files to share, click *Configure File Sharing* and enter the `root` password.

4 To enable or disable file sharing, select or deselect *Enable Local Network File Sharing*.

Figure 9.2 *Enabling File Sharing*
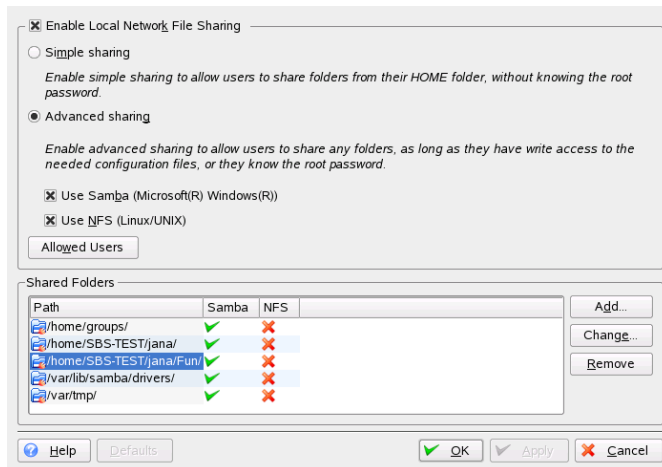
5 Select the appropriate sharing option: *Simple sharing* or *Advanced sharing*.

6 To limit the number of users allowed to share folders to certain groups, click *Allowed Users*, select *Only users of a certain group are allowed to share folders*, click *Choose Group*, and select the appropriate group from the list in the window that opens.

7 Add the folder to share to the list of shared items at the bottom of the dialog by clicking *Add* and specifying the folder's exact path.

Figure 9.3   *Detailed Sharing Options*
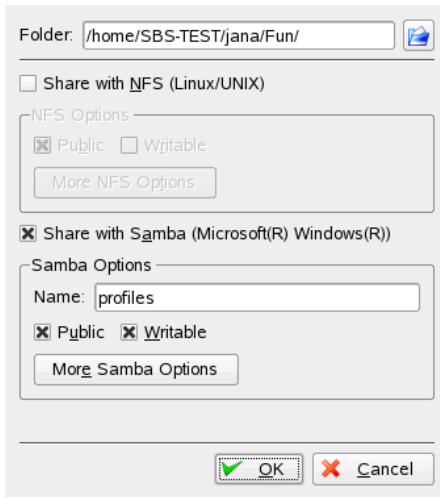
8 Activate *Share with Samba* to enable Samba file sharing. If needed, apply some fine-tuning to the Samba options:

Name
> Specify a name other than the preset default.

Public/Writable
> Determine which kind of access to grant others to your share. You can grant users full read and write access or limit their access to just reading your shares.

More Samba Options

These contain basic settings like name, an optional comment, and basic access rights as well as user and security settings and an option to hide particular files and subfolders in the shared folder.

9 Apply your settings and leave the file sharing dialog with *OK*.

The folder icon now appears in Konqueror with a plug.

Figure 9.4   *Shared Folder*
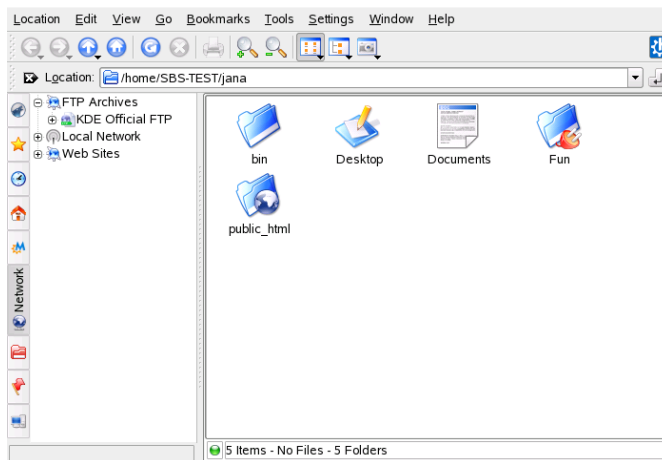
To revoke the share, enter the file sharing dialog again and remove the folder from the list of shared items. The folder icon then appears without a plug.

Other members of your network can reach your share by entering smb : / in the location bar of Konqueror and clicking the appropriate workgroup icon and hostname.

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. This procedure is described in more detail in Section 11.3, "Configuring a Linux Client for Active Directory" (Chapter 11, *Active Directory Support*, ↑Deployment Guide).

9.4 Managing Windows Files

With your SUSE Linux Enterprise Desktop machine being an Active Directory client as described in Chapter 11, *Active Directory Support* (↑Deployment Guide), you can browse, view, and manipulate data located on Windows servers. The following examples are just the most prominent ones:

Browsing Windows Files with Konqueror
> Use Konqueror's `smb:/` browsing option to browse your Windows data.

Viewing Windows Data with Konqueror
> Use Konqueror 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 KDE Applications
> KDE applications, such as the Kate text editor, allow you to open files on the Windows server, manipulate them, and save them to the Windows server.

Single-Sign-On
> KDE applications, including Konqueror, 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 Konqueror, proceed as follows:

1 Press ⌊Alt⌋ + ⌊F2⌋ and enter `smb://`

This opens a Konqueror window displaying all Samba workgroups and domains that could be found in your network.

2 Click the icon of the workgroup or domain of your AD server.

Figure 9.5 *Browsing Data on the AD Server*
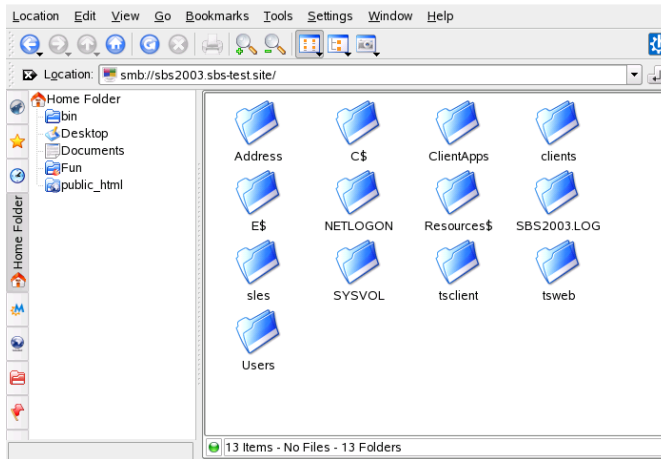
3 Click the *Users* folder and select your personal user folder icon. The contents of your *My Documents* folder are displayed.

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

1 Right-click the background of the Konqueror folder view to open the menu.

2 Select *Create New → Folder*.

3 Enter the new folder's name when prompted to do so.

To create a file on the AD server, proceed as described in the following example for the Kate text editor.

1 Press [Alt] + [F2] and enter kate.

2 Enter your text.

Figure 9.6 *Editing a Text File with Kate*
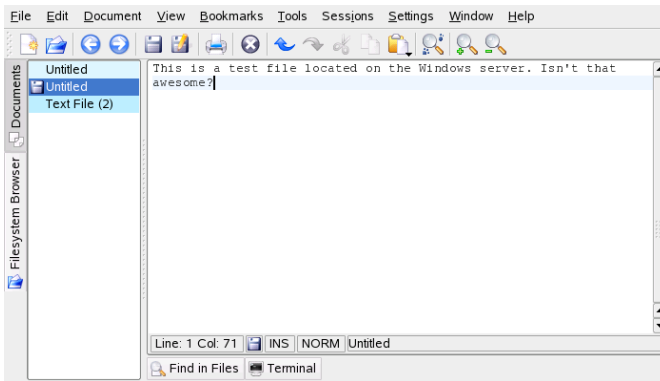
3 To save the newly created text, select *Save as*.

4 Click the *Network Folders* icon to the left and select *SMB Shares*.

Figure 9.7 *Saving a File to a Remote Windows Folder*
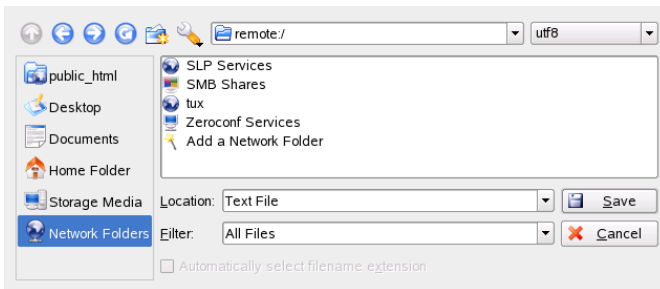
5 Navigate to your Windows folder.

6 Enter the filename and click *Save*.

The file is saved on the Windows server.

Make use of Konqueror's Single-Sign-On support, as in the following example—Web access to your MS Exchange mailbox:

1 Make sure that you have a valid MS Exchange account under your current Windows user identity.

2 Request the Exchange server's address from your system administrator.

3 Press [Alt] + [F2] and enter konqueror
http://*address_exchange_server*.

You are logged in to your Exchange account without having to reauthenticate.

Figure 9.8   *Accessing MS Exchange through Konqueror*
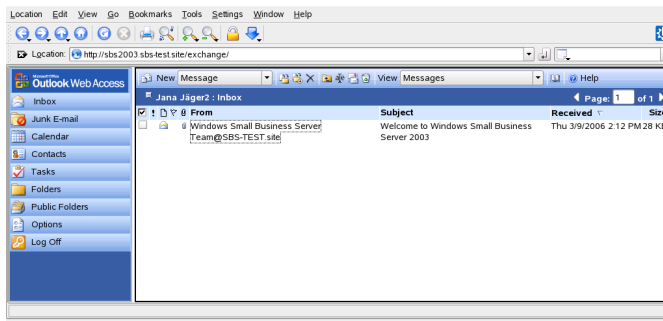
4 Write or read your e-mails and log out as usual.

9.5 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. KDE 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 KDE Control Center from the main menu.

2 Select *Peripherals → Printers*.

Figure 9.9 *Adding a Printer*
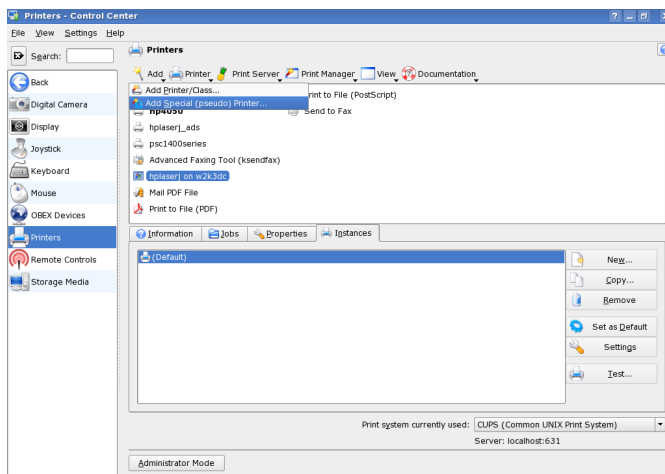
3 Select *Add → Add Special (pseudo) Printer*.

Figure 9.10 *Adding Printer Details*
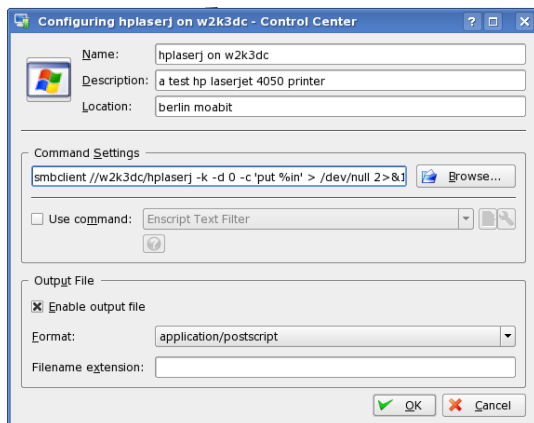
4 Enter the printer's name, a short description, and its location.

5 Enter a command line similar to the following example in *Command Settings*:

```
smbclient //domain/printer -k -d 0 -c 'put %in' > /dev/null 2>&1
```

Replace `domain` and `printer` with the exact values matching your setup.

6 Check *Enable output file* and select *application/postscript* to pipe all your print jobs to a postscript file.

7 Leave the printer configuration with *OK*.

8 Leave the KDE Control Center with *File → Quit*.

The printer is ready for use.

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

9.6 Configuring Shortcuts to Network Folders

With KNetAttach, you can also add new network folders to this view by clicking *Add a Network Folder* in a Konqueror `remote:/` view. A wizard opens where you can select the type of network folder to access and enter the details, such as a name for the network folder, the address of the server (either the IP address or domain name), the login name, the port, and the path to folder to access.

Figure 9.11 *Adding a Network Folder*

After finishing, you can access the network share in Konqueror by clicking the newly created link instead of entering a lengthy URL for this share in the location bar.

Figure 9.12 *New Network Folder*
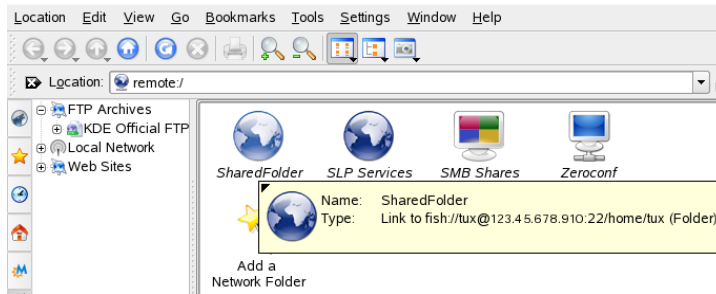
If you add a network folder in this way, you can also access this folder easily when opening or saving a file from a KDE application. If you click *Network Folders* in the left-hand bar of an *Open File* or a *Save File* dialog, the network folder you added appears.

Figure 9.13   *Opening a File from a Network Share*
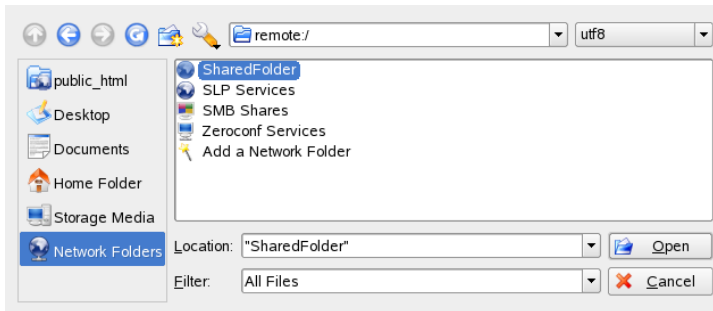
TIP: Linking to Network Shares on the Desktop

For quick access to network shares you need very often, you can also create links to these resources on your desktop. To do so, select the desired resource in Konqueror and drag it onto your desktop while keeping the left mouse button pressed. From the context menu, select *Link Here*. A new icon appears on your desktop. If you click that icon, Konqueror opens and displays the content of this directory.

9.7 Configuring and Using a Small Web Server

The kpf utility provides simple file sharing using HTTP (*Hyper Text Transfer Protocol*), which is the same protocol used by Web sites to provide data to your Web browser. kpf is strictly a public file server, which means that there are no access restrictions to shared files. Whatever you select for sharing is available to anyone.

IMPORTANT: Security Considerations

Before setting up a file server with kpf, check with your system administrator whether your company's security policies allow this. You should never set up a file server in a corporate or private environment if you are not entirely sure that your network is protected by an outer firewall. Otherwise you might risk accidentally leaking sensitive information to the Web. In addition to that, any

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Web server is a potential target for hacker's exploits. Setting up a Web server in a secure way is a very hard job and kpf was not designed to act as such a Web server.

kpf is designed to be used for sharing files with friends, not to act as a fully-fledged Web server like Apache. kpf was primarily conceived as an easy way to share files with others while chatting on IRC (Internet Relay Chat, or chat rooms).

kpf is typically set up to serve files from a `public_html` folder in your home directory. For example, if you want to make a file available to some people with whom you are chatting online, you can use kpf to copy the file into your `public_html` folder and announce to those listening that your file is available at `http://www.mymachine .net:8001/thefile` (rather than send them each an e-mail with the file attached).

1 Right-click the bottom panel in KDE then click *Add Applet to Panel* and select *Public File Server*.

 A new icon depicting a small globe appears on the bottom panel.

2 Right-click the icon then click *New Server*.

3 Specify the directory containing the files you want to share then click *Next*.

Figure 9.14 *Selecting the File Server Root Directory*
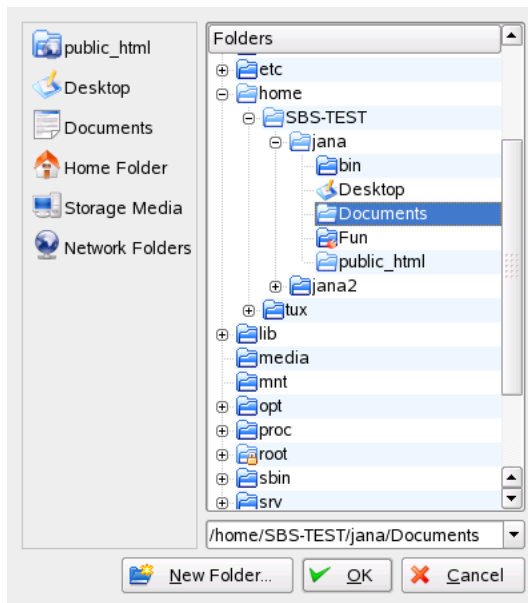
All files in the folder and its subfolders, including hidden files (files that start with a dot) and symbolic links, are made publicly available, so be careful not to share sensitive information, such as passwords, cryptographic keys, your address book, or documents private to your organization. Make sure that any symbolic links included do not point outside your published folder, because that would give others access to areas of your system that are not intended for public viewing.

4 Complete the remainder of the *New Server* wizard to share the folder specified in Step 3 (page 181).

The directory icon now appears in Konqueror with a world icon at the bottom right side.

Other parties wishing to connect to this server should just enter a URL like `http://hostname:8001` into their browsers. An overview of the published content is displayed.

Figure 9.15 *Published Contents*
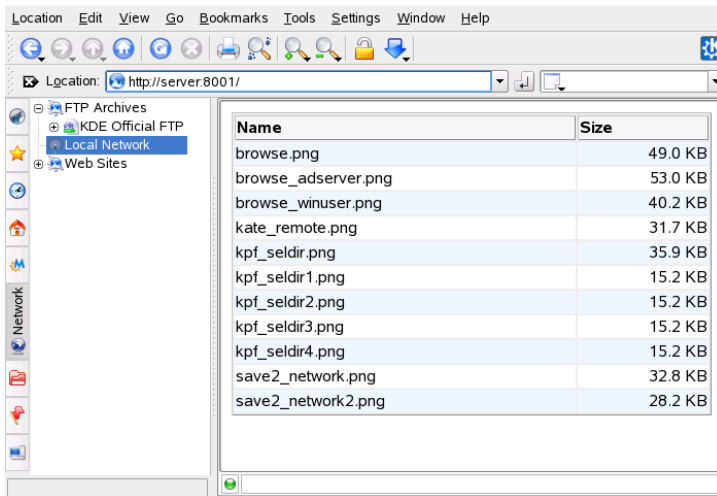
On the hosting machine, you can monitor the network traffic on your file server by right-clicking the globe icon and selecting *Monitor*. A short set of statistics similar to the following is given.

Figure 9.16 *File Server Statistics*

Encryption with KGpg

10

KGpg is an important component of the encryption infrastructure on your system. With the help of this program, generate and manage all needed keys. Use its editor function for the quick creation and encryption of files or use the applet in your panel to encrypt or decrypt by dragging and dropping. Other programs, such as your mail program (Kontact or Evolution), access the key data to process signed or encrypted contents. This chapter covers the basic functions needed for daily work with encrypted files.

10.1 Generating a New Key Pair

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

IMPORTANT: Private Key versus Public Key

The public key is intended for the public and should be distributed to all your communication partners. However, only you should have access to the private key. Do not grant other users access to this data.
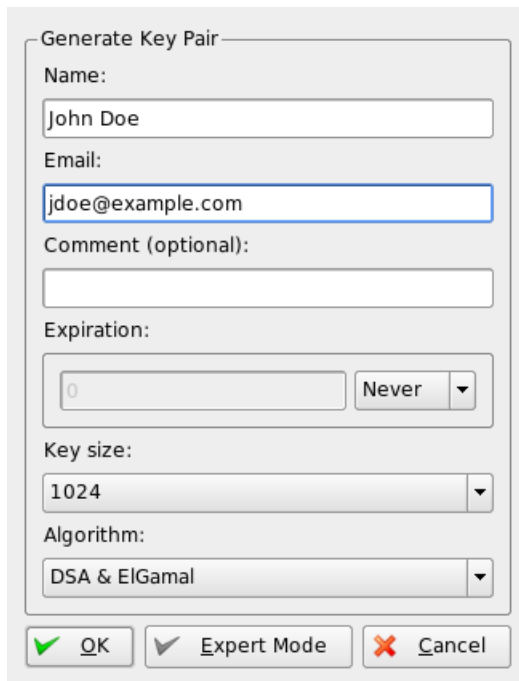
Start KGpg from the main menu or press [Alt] + [F2] and enter kgpg. When you start the program for the first time, an assistant appears to guide you through the configuration. Follow the instructions up to the point where you are prompted to create a key. Enter a name, an e-mail address, and, optionally, a comment. If you do not like the default

settings provided, also set the expiration time for the key, the key size, and the encryption algorithm used. See Figure 10.1, "KGpg: Creating a Key" (page 186).

When you start KGpg in later sessions, only a small icon with a padlock appears in the system tray. Click that icon to display the main KGpg window on your desktop.

Figure 10.1   *KGpg: Creating a Key*

Confirm your settings with *OK*. The next dialog prompts you to enter a password twice. The relative strength of your chosen password is measured and displayed by the *Password strength meter*. The program then generates the key pair and displays a summary. It is a good idea to save or print a revocation certificate right away. Such a certificate is needed if you forget the password for your private key so need to revoke it. After you confirm with *OK*, KGpg displays its main window. See Figure 10.2, "The Key Manager" (page 187).

Figure 10.2   *The Key Manager*
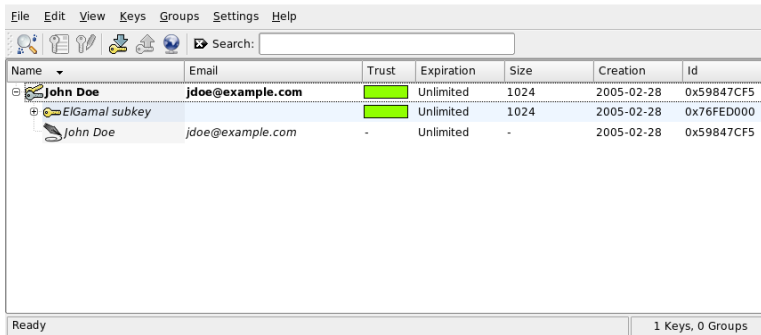
10.2 Exporting the Public Key

After generating your key pair, make the public key available to other users. This enables them to use it to encrypt or sign the messages or files they send you. To make the public key available for others, select *Keys → Export Public Key(s)*. The dialog that opens offers four options:

Email
> Your public key is sent to a recipient of your choice by e-mail. If you activate this option and confirm with *OK*, the dialog for creating a new e-mail message with KMail appears. Enter the recipient and click *Send*. The recipient receives your key and can then send you encrypted contents.

Clipboard
> You can place your public key here before continuing to process it.

Default Key Server
> To make your public key available to a wide audience, export it to one of the key servers on the Internet. For more information, refer to Section 10.4, "The Key Server Dialog" (page 189).

File
> If you prefer to distribute your key as a file on a data medium instead of sending it by e-mail, click this option, confirm or change the file path and name, and click *OK*.

10.3 Importing Keys

If you receive a key in a file (for example, as an e-mail attachment), integrate it in your key ring with *Import Key* and use it for encrypted communication with the sender. The procedure is similar to the procedure for exporting keys already described.

10.3.1 Signing Keys

Keys can be signed like every other file to guarantee their authenticity and integrity. If you are absolutely sure an imported key belongs to the individual specified as the owner, express your trust in the authenticity of the key with your signature.

IMPORTANT: Establishing a Web of Trust

Encrypted communication is only secure to the extent that you can positively associate public keys in circulation with the specified user. By cross-checking and signing these keys, you contribute to the establishment of a web of trust.

Select the key to sign in the key list. Select *Keys → Sign Keys*. In the following dialog, designate the private key to use for the signature. An alert reminds you to check the authenticity of this key before signing it. If you have performed this check, click *Continue* and enter the password for the selected private key in the next step. Other users can now check the signature by means of your public key.

10.3.2 Trusting Keys

Normally, you are asked by the corresponding program whether you trust the key (whether you assume it is really used by its authorized owner). This happens each time a message needs to be decrypted or a signature must be checked. To avoid this, edit the trust level of the newly imported key. By default, a newly imported key is listed with a white box, meaning that no concrete value has been assigned for the trust level.

Right-click the newly imported key to access a small context menu for key management. Select *Sign Keys* from it. KGpg opens a text a message box and asks the user to recheck the fingerprint of the key. Use *Continue* to access the key signing dialog.

Select your trust level, for example, select *I Have Done Very Careful Checking*. After finishing this dialog, you need to enter your passphrase to finish the key signing process. The newly imported key now displays a green trust level for a trusted key.

The trust level of the keys in your key ring is indicated by a colored bar next to the key name. The lower the trust level is, the less you trust the signer of the key to have checked the true identity of the keys signed. You may be entirely sure about the signer's identity, but he may still be lazy in regard to checking other people's identities before signing their keys. Therefore, you could still trust him and his own key, but assign lower trust levels to the keys of others that have been signed by him. The trust level's purpose is solely one of a reminder. It does not trigger any automatic actions by KGpg.

10.4 The Key Server Dialog

Several Internet-based key servers offer the public keys of many users. To engage in encrypted communication with a large number of users, use these servers to distribute your public key. For this purpose, export your public key to one of these servers. Similarly, KGpg enables you to search one of these servers for the keys of certain people and import their public keys from the server. Open the key server dialog with *File → Key Server Dialog*.

10.4.1 Importing a Key from a Key Server

By means of the *Import* tab in the key server dialog, import public keys from one of the Internet-based key servers. Select one of the preconfigured key servers and enter a search string (e-mail address of the communication partner) or the ID of the key to find. When you click *Search*, your system connects to the Internet and searches the specified key server for a key that matches your specifications. Refer to Figure 10.3, "Search Screen for Importing a Key" (page 190).

Figure 10.3 *Search Screen for Importing a Key*
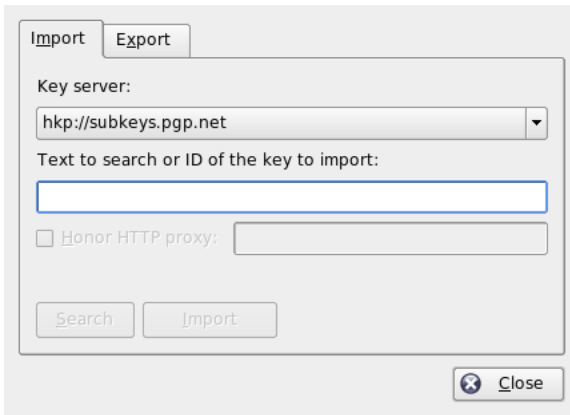
If your search on the key server is successful, a list of all retrieved server entries is displayed in a new window. Select the key to include in your key ring and click *Import*. See Figure 10.4, "Hits and Import" (page 190). Confirm the following message with *OK* then exit the key server dialog with *Close*. The imported key then appears in the main overview of the key manager and is ready for use.

Figure 10.4 *Hits and Import*
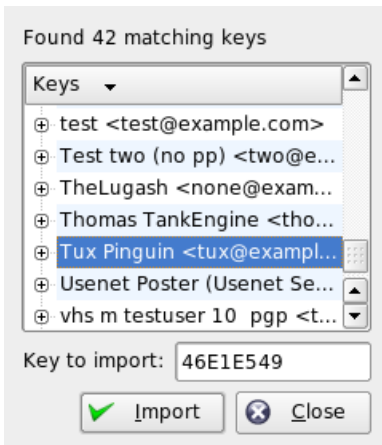
10.4.2 Exporting Your Keys to a Key Server

To export your key to one of the freely accessible key servers on the Internet, select the *Export* tab in the key server dialog. Designate the target server and the key to export by means of two drop-down menus. Then start the export with *Export*.

Figure 10.5   *Exporting a Key to a Key Server*
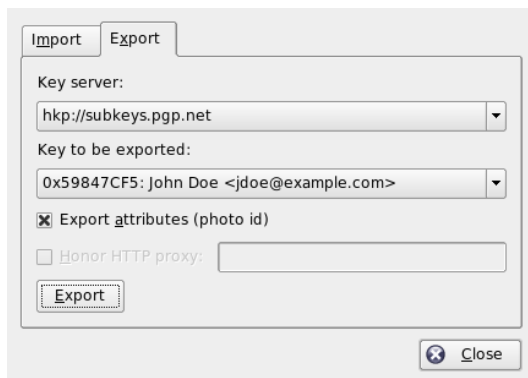
10.5 Text and File Encryption

KGpg also offers the possibility to encrypt text or clipboard contents. Right-click the padlock icon and find the options *Encrypt clipboard* and *Decrypt clipboard* as well as the option for opening the integrated editor.

10.5.1 Encrypting and Decrypting the Clipboard

Files copied to the clipboard can easily be encrypted with a few clicks. Open the function overview by right-clicking the KGpg padlock icon. Select *Encrypt Clipboard* and designate the key to use. A status message about the encryption procedure is displayed on the desktop. The encrypted contents can now be processed from the clipboard as needed. The decryption of clipboard contents is just as easy. Simply open the menu on the panel, select *Decrypt Clipboard*, and enter the password associated with your private

key. The decrypted version is now available for processing in the clipboard and in the KGpg editor.

10.5.2 Encrypting and Decrypting by Dragging and Dropping

To encrypt or decrypt files, click the icons on the desktop or in the file manager, drag them to the padlock in the panel, and drop them there. If the file is not encrypted, KGpg asks for the key to use. As soon as you select a key, the file is encrypted without any further messages. In the file manager, encrypted files are designated with the suffix `.asc` and the padlock icon. These files can be decrypted by clicking the file icon, dragging it to the KGpg symbol in the panel, and dropping it there. If the original file-name already exists, a dialog opens that asks how to name the file or if it should be overwritten.

10.5.3 The KGpg Editor

Instead of creating contents for encryption in an external editor then encrypting the file with one of the methods described above, you can use the integrated editor of KGpg to create the file. Open the editor (*Open Editor* from the context menu), enter the desired text, and click *Encrypt*. Then select the key to use and complete the encryption procedure. To decrypt files, use *Decrypt* and enter the password associated with the key.

Generating and checking signatures on documents is just as easy as encrypting directly from the editor. Select a file in the file manager and copy it to the clipboard. Right-click the padlock icon in the panel and select *Sign/Verify Clipboard*. Then choose the private key to use and enter the associated password. KGpg informs about the successful generation of the signature. Files can also be signed from the editor by simply clicking *Sign/Verify*. To check a signed file, go to *File → Open Editor*, load the file to check in the editor, and click *Sign/Verify*.

10.6 For More Information

For theoretical background information about the encryption method, refer to the brief and clear introduction on the GnuPG project pages at http://www.gnupg.org/

`documentation/howtos.html.en`. This document also provides a list of further information sources.

11

Searching with Kerry

Kerry is a KDE front-end for the Beagle search tool, which indexes your personal information space to help you find whatever you need. You can use Kerry to find documents, e-mails, Web history, IM/ITC conversations, source code, images, music files, applications, and much more.

Because Kerry is a front-end to Beagle, it needs the beagle daemon to be functional. Kerry and Beagle can now index many KDE-specific sources of information, such as Kopete conversations, Konqueror history, or KMail messages. The result is a smooth integration into the KDE environment through the Kerry interface.

Find more about Beagle in *GNOME User Guide*.

11.1 Searching Using Kerry

To find data using the Kerry tool, follow these steps:

1 Press F12 to open the Kerry Beagle Search window. Alternatively, open the search window by left-clicking on the Kerry applet icon (a magnifying glass over a sheet of paper) in the system tray.

2 Enter the term to find in *Search*. To quickly clear the previously entered text, press the black arrow on the left.

The search is case insensitive. It does not matter whether you use uppercase or lowercase characters. To search for optional terms, use the *OR* keyword (in uppercase). For example, *Mars OR Venus* finds all data containing any occurrence

of Mars, Venus, or both. To exclude search terms, use a minus symbol (–) in front of them. For example, `Mars -Venus` finds all data containing any occurrence of Mars but without any occurrence of Venus. To search for an exact phrase, enclose the phrase in quotes. If you want to include only certain file type in results, specify its extension with *ext:*. For example, `Mars ext:xml` finds xml files containing Mars.

3 Select the scope of the search in *Within* on the right. To search all the indexed content, choose *Everything*. However, you can limit the search only to indexed applications, office documents, instant messenger conversations, image files, media files, or Web pages by making an appropriate choice from the menu.

4 Press *Find* to start the search. Results are displayed in the main area of the window.

Results are displayed in a window, sorted according to your settings. Click any item to activate it. To open a folder containing a found file instead of the file itself, click *Reveal in Filemanager*.

You can change the sort order at any time by right-clicking the result window and choosing your preferred sorting method from the context menu.

Use *Previous results* and *Next results* to move between pages of the result list. The number of items found is shown in the bottom part of the window.

11.2 Configuring Kerry

You can configure Kerry by right-clicking its icon in the tray and choosing *Configure Kerry*. On the *Search* tab, keep *Start search and indexing services automatically* activated if you want Kerry to index your data automatically. Use *Maximum number of results displayed* to determine the number of results to show per page and *Default sort order* to determine the default order of the results displayed. They can be sorted by relevance, name, or modification date.

11.2.1 Indexing More Directories

By default, Kerry indexes your home folder only. If you want to index more folders, follow these steps:

1 Right-click the Kerry icon in the tray and choose *Configure Kerry*.

2 Click the *Indexing* tab.

3 If you do not want to stop indexing your home folder, keep the option *Index my home folder* checked. Add more folders to the list of indexed folders by pressing *Add* and choosing a folder in the dialog that opens.

To add all folders with application-related data automatically, use *Applications*.

To remove a folder from the list of indexed folders, select it in the list, press *Remove*, and confirm.

4 Press *OK*.

11.2.2 Preventing Files and Directories from Being Indexed

To exclude some folders or files from being indexed by Kerry, follow these steps:

1 Right-click the Kerry icon in the tray and choose *Configure Kerry*.

2 Click the *Indexing* tab.

3 Press *Add* in the lower part of the dialog (*Privacy*).

4 In the dialog that opens, choose a folder not to index by selecting the *Folder* option. Specify the path to the folder in the text field or press the folder button and choose the folder in a file dialog.

You can also specify files not to index by selecting the *File name pattern* option and specifying the file pattern.

5 Press *OK*.

Managing Printers

12

Printers can either be connected to your system locally or accessed over a network. There are several ways to set up a printer in SUSE® Linux Enterprise Desktop: with YaST, with the KDE Printing Manager, or on the command line. This chapter describes how to set up printers with the KDE Printing Manager. After configuring the printer correctly, you can address it from any application.

For information about how to manage printers with iPrint® refer to the *iPrint User Guide* at `http://www.novell.com/documentation/sled10/`.

NOTE: Troubleshooting

If you have problems configuring your printer, ask your system administrator. An in-depth coverage of printer configuration for administrators can be found in Chapter 19, *Printer Operation* (↑Deployment Guide).

12.1 Installing a Printer

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

To set up a printer in KDE, start the Printing Manager from the main menu (*Tools → Printing → Printing Manager*). Alternatively, press [Alt] + [F2] and enter `kcontrol`.

In the left-hand navigation bar of the KDE Control Center, click *Peripherals → Printers*.

Figure 12.1 *Printing Manager*
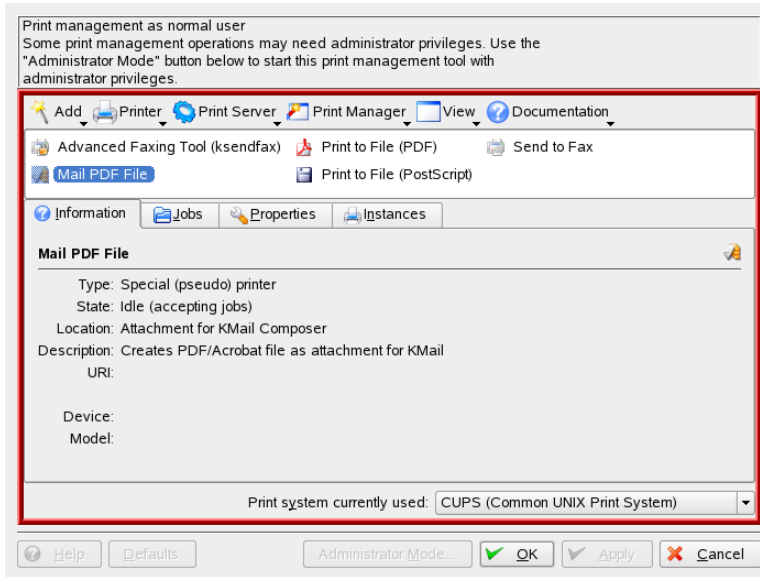
You can set up a printer as `root` with the help of a wizard, as described in the following. If you are not sure which option to choose and which information to enter, ask your system administrator.

For detailed information about how to access and configure a Windows network printer, refer to .

1 Click *Administrator Mode* and enter the `root` password.

2 Click *Add* and select *Add Printer/Class*. The *Add Printer Wizard* opens.

3 Click *Next*.

4 Select the type of connection for this printer. The following options are available:

   • *Local printer (parallel, serial, USB)*: A printer that is attached to your workstation through a parallel, serial, or USB connection.

- *Remote LPD queue*: A printer attached to a different UNIX or Linux system that can be accessed over a TCP/IP network (for example, a printer attached to another Linux system on your network).

- *SMB shared printer (Windows)*: A printer attached to a different system that is sharing the printer over a SMB network (for example, a printer attached to a Microsoft Windows machine).

- *Network Printer (TCP)*: A printer connected to the network using the TCP protocol.

- *Remote CUPS server (IPP/HTTP)*: A printer attached to a different Linux system on the same network running CUPS or a printer configured on another operating system using IPP.

- *Network printer w/IPP (IPP/HTTP)* : A printer connected to the network using the IPP/HTTP protocol.

- *Other printer type*: If your printer does not fit one of the classes above, choose this option.

- *Class of printers*: To find printers by a specific class, choose this option.

5 Click *Next* and enter the information required for your choice. In the last wizard dialog, click *Finish*. The wizard closes.

6 Click *OK* to close the *Printing Manager* dialog.

When printing from an application in KDE, you can now select the printer in the KPrinter dialog and start a print job. For more information about sending and monitoring print jobs in KDE, refer to .

12.2 Modifying Printer Settings

1 Start the Printer Manager from the main menu (*Utilities* → *Printing* → *Printing Manager*).

2 Click *Administrator Mode* and enter your `root` password.

3 In the display field showing the list of available printers, select the printer to modify.

4 Right-click and select *Configure*.

5 Modify the properties in the configuration dialog then click *OK*.

12.3 Deleting a Printer

1 Start the Printer Manager from the main menu (*Utilities* → *Printing* → *Printing Manager*).

2 Click *Administrator Mode* and enter your `root` password.

3 In the display field showing the list of available printers, select the printer to delete.

4 Right-click and select *Remove*.

5 Click *OK* to close the *Printing Manager* dialog.

12.4 Starting Print Jobs in KDE

In KDE, you usually start print jobs with KPrinter. This application is started automatically each time you print from a KDE application. In the KPrinter dialog, choose a printer and edit the *Properties* of your print job, such as page orientation, pages per sheet, and duplex printing.

TIP: Sending Files to a Printer without Opening the Application

You can also start KPrinter manually by pressing Alt + F2 and entering `kprinter`. This is useful if you want to print one or several files without starting the application to view or edit the file. The KPrinter dialog then additionally includes the *Files* tab, where you can determine the files to print. Either drag them from the desktop and drop them into the list or use the file dialog to locate them.

To specify the number of copies and various other options, click *Expand* at the bottom left. The window then expands and shows three tabs: *Copies*, *Advanced Options*, and *Additional Tags*. See .

Figure 12.2   *Starting a Print Job with KPrinter*
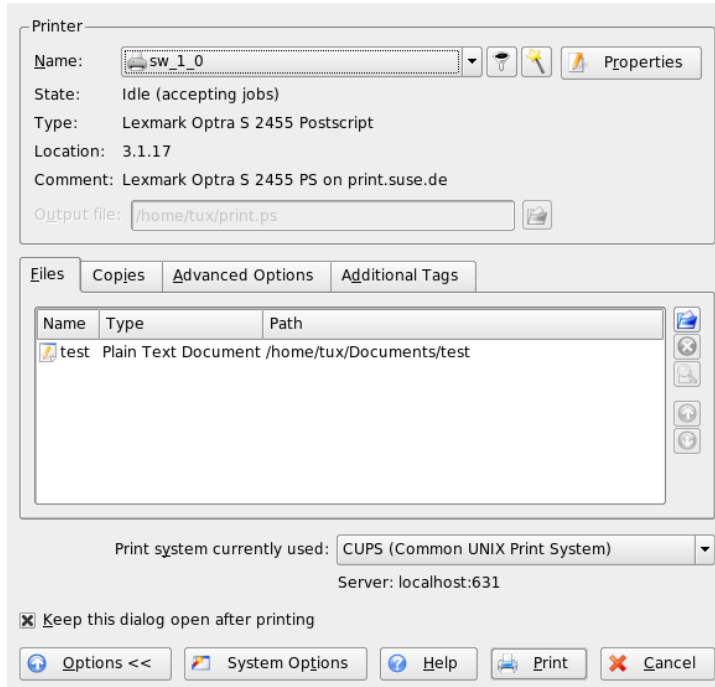
The *Copies* tab determines the page selection (all pages of the selected document, the currently selected one, or a range) and the number of copies. You may also choose to print only the even or only the odd numbered pages of the selected document. Use *Advanced Options* to specify any additional information for the print job. Enter any *Billing information* if needed or set a custom page label at the top and bottom of the page. The *Job Priority* can also be set here. The last tab, *Additional Tags* is rarely needed. Once your print job has been filed, you can watch its progress using KJobViewer.

12.5 Monitoring Print Jobs in KDE

Start KJobViewer from the main menu or with `kjobviewer` from the command line. A window like that in Figure 12.3, "Monitoring Print Jobs with KJobViewer" (page 204) opens, listing all the print jobs queued on your printer. As long as your print job is not active, you can edit it. Do this using the entries of the *Jobs* menu.

Figure 12.3   *Monitoring Print Jobs with KJobViewer*
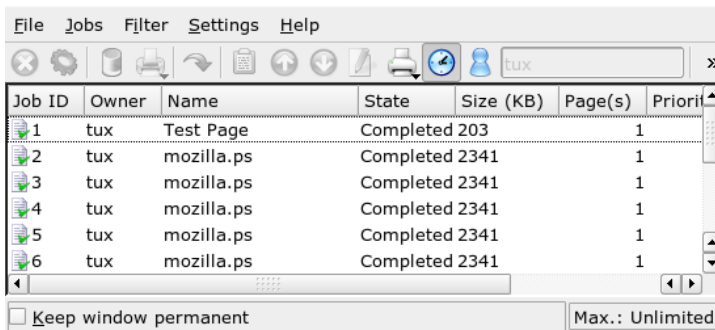
If, for example, you want to check if you sent the correct document to the printer, you can stop the job and resume it if you decide to print it. Remove your own print jobs from the queue with *Remove*. To change the printer, select a different printer with *Move to Printer*.

With *Restart*, reprint a document. To do this, select *Filter → Toggle Completed Jobs*, select the desired document, and click *Jobs → Restart*. Clicking *Jobs → Job IPP Report* shows the technical details of a job. Use *Jobs → Increase Priority* and *Jobs → Decrease Priority* to set the priority, depending on how quickly you need the document.

Filter enables you to switch between various printers, toggle completed jobs, and limit the view to your own print jobs by selecting *Show Only User Jobs*. The current user is then displayed in the top right field.

Settings → Configure KJobViewer opens a configuration dialog. Here, determine the maximum number of print jobs to display. Enter a number in the field or use the slider to the right to determine a value. Press *OK* to save the setting or *Cancel* to exit the dialog without saving.

The icons in the toolbar correspond to the functions you can access by way of the menu. Display a help text explaining the function by holding the mouse pointer over one of the icons.

The job list consists of eight columns. The job ID is automatically assigned by the print system to identify the various jobs. The next column contains the login of the user who sent the job followed by the filename of the document. The status column indicates whether a job is still in the queue, currently being printed, or already completed. Next, the size of the document is displayed in kilobytes and number of pages. The default priority of 50 can be increased or reduced if necessary. Billing information can be cost centers or other company-specific information. If you right-click a job in the list, the *Jobs* menu opens under the mouse pointer, allowing you to select an action. Only a few functions are available for completed jobs. If you activate *Keep window permanent*, KJobViewer opens automatically the next time you log in.

Part III. Internet

Browsing with Konqueror

13

Konqueror is not only a versatile file manager. It is also a modern Web browser. If you start the browser with the icon in the panel, Konqueror opens with the Web browser profile. As a browser, Konqueror offers tabbed browsing, the possibility of saving Web pages with graphics, Internet keywords, bookmarks, and support for Java and JavaScript.

Figure 13.1 *The Browser Window of Konqueror*

Start Konqueror from the main menu or by entering the command `konqueror`. To load a Web page, enter its address in the location bar, for example, http://www.suse.com. Konqueror now tries to reach the address and display the page. Entering the protocol at the beginning of the address (`http://` in this case) is not strictly required. The program is able to complete the address automatically, but this only works reliably with Web addresses. For an FTP address, always enter `ftp://` at the beginning of the input field.

13.1 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. The advantage is that you keep more control over your desktop because you only have one main window. After logout, the KDE session management allows for saving your Web session in Konqueror. The next time you log in, Konqueror loads the exact URLs visited last time.

To open a new tab, select *Window → New Tab* or press Ctrl + Shift + N. To change the behavior of tabs, go to *Settings → Configure Konqueror*. In the dialog box that opens, select *Web Behavior → Tabbed Browsing*. To open new tabs instead of windows, enable *Open links in new tab instead of in new window*. You can also hide the tab bar with *Hide the tab bar when only one tab is open*. To see more options, press *Advanced Options*.

13.2 Automatic Scrolling

In general, scrolling with the mouse is the normal way to view information farther down a Web page. However, there are sometimes occasions when it is preferable not to use a mouse. It can be very convenient to use key combinations instead of removing hands from the keyboard.

To scroll down automatically, use Shift + ↓. This scrolls down the page without further intervention. Increase the speed by pressing Shift + ↓ again. Pressing Shift + ↑ slows down. To stop scrolling, use ↓.

13.3 Profiles

Section 13.1, "Tabbed Browsing" (page 210) described how to handle tabs in Konqueror. You can save your tabs with URLs and the position of the window in a profile. This differs from the session management already mentioned. With profiles, your saved tabs are at hand without the intensive start-up time of session management.

To create a profile, do the following:

1 Go to *Settings → Configure View Profiles*.

2 In the dialog box that appears, insert a name in *Profile name*.

3 To save your URLs, select *Save URLs in profile*.

4 To freeze the position and size of the windows, select *Save window size in profile*.

5 Approve with *Save*.

The next time you need your tab collection, go to *Settings → Load View Profile* and find the name listed in the menu. After you select it, Konqueror restores your tabs.

13.4 Saving Web Pages and Graphics

As in other browsers, you can save Web pages. To do this, select *Location → Save as* and specify a name for your HTML file. However, images are not saved. To archive an entire Web page including the images, select *Tools → Archive Web Page*. Konqueror suggests a filename that you can usually accept. The filename ends with .war, the extension for Web archives. To view the saved Web archive later, simply click the respective file and the Web page is displayed in Konqueror along with its images.

13.5 Searching with Konqueror

Searching with Konqueror is very convenient. You can use the search bar or Web shortcuts.

13.5.1 Using the Search Bar

Konqueror contains a search bar where you can choose from many search engines. If you want to search for a specific term, proceed as follows:

1 Start Konqueror.

2 Locate the search bar. It is on the right side after the location bar.

3 Click the icon inside the search bar. Choose a search engine from the pop-up menu.

4 Insert your search term and press ⌷Enter⌷. The result is displayed in Konqueror.

If you need a search engine that is not listed in the pop-up menu, add it as follows:

Procedure 13.1 *Adding More Search Engines*

1 Start Konqueror.

2 Click the icon in the search bar.

3 Choose *Select Search Engines*.

4 Make sure that *Enable Web shortcuts* is activated.

5 Enable the respective search engine and close the dialog with *Ok*. You can see your selected search engine if you click the icon in the search bar.

13.5.2 Using Web Shortcuts

Each search engine defined is attached to a *web shortcut*. This shortcut can be entered in the location bar.

To see which are already defined, go to *Settings → Configure Konqueror → Web Shortcuts*. You can see the names of the search providers and the shortcuts. Konqueror defines many search engines: Google, Yahoo, and Lycos, and a number of less common resources, like an acronym database, the Internet movie database, and KDE application searches.

If you do not find your preferred search engine here, easily define a new one. For example, to search our support database for some interesting articles, normally go to http://portal.suse.com/, find the search page, and enter your query. This can be simplified

Procedure 13.2   *Creating New Web Shortcuts*

   1 Go to the search bar, click the icon, and select *Select Search Engines*.

   2 Make sure that *Enable Web Shortcuts* is activated.

   3 Click *New*.

   4 Create a new Web shortcut:

      a Assign your Web shortcut a name in *Search provider name*.

      b Enter the search URI. Pressing Shift + F1 and clicking in the field opens a small help. The search query is specified as \{@}. The challenge is inserting this at the correct position. For example, if you want to search in the SUSE Support Database, use https://portal.suse.com/PM/page/search.pm?q=\{@}&t=optionSdbKeywords&m=25&l=en&x=true.

      c Enter your abbreviations in *URI shortcuts*. There can more than one, separated by commas.

   5 Proceed with *Ok*.

TIP: Using Shortcuts Directly without Opening Konqueror

You do not need to open Konqueror and enter the Web shortcut. It is also possible to call it directly. Select *Run command* from the main menu or press Alt + F2. After the dialog box appears, enter your shortcut with the search term.

After creating a new Web shortcut, for example, sdb_en, you can use this in the location bar. The result is displayed in the current window.

13.6 Bookmarks

Instead of remembering and reentering addresses for sites visited often, you can bookmark these URLs using the *Bookmark* menu. As well as Web page addresses, you can also bookmark any directories of your local disk in this way.

To create a new bookmark in Konqueror, click *Bookmarks → Add Bookmark*. Any bookmarks added previously are included as items in the menu. It is a good idea to arrange the bookmark collection by subjects in a hierarchical structure, so that you do not lose track of the different items. Create a new subgroup for your bookmarks with *New Bookmark Folder*. Selecting *Bookmarks → Edit Bookmarks* opens the bookmark editor. Use this program to organize, rearrange, add, and delete bookmarks.

If you are using Netscape, Mozilla, or Firefox as additional browsers, it is not necessary to recreate your bookmarks. *File → Import → Import Netscape Bookmarks* in the bookmark editor enables you to integrate your Netscape and Mozilla bookmarks into your most current collection. The reverse is also possible via *Export as Netscape Bookmarks*.

Change your bookmarks by right-clicking the entry. A pop-up menu appears in which to select the desired action (cut, copy, delete, etc.). When you are satisfied with the result, save the bookmarks with *File → Save*. If you only want to change the name or link, just right-click the entry in the bookmark toolbar and select *Properties*. Change the name and location and confirm with *Update*.

To save your bookmark list and have instant access to it, make your bookmarks visible in Konqueror. Select *Settings → Toolbars → Bookmark Toolbar (Konqueror)*. A bookmark panel is automatically displayed in the current Konqueror window.

13.7 Java and JavaScript

Do not confuse these two languages. Java is an object-oriented, platform-independent programming language from Sun Microsystems. It is frequently used for small programs (applets), which are executed over the Internet for things like online banking, chatting, and shopping. JavaScript is an interpreted scripting language mainly used for the dynamic structuring of Web pages, for example, for menus and other effects.

Konqueror allows you to enable or disable these two languages. This can even be done in a domain-specific way, which means that you can permit access for some hosts and block access for others. Java and JavaScript are often disabled for security reasons. Unfortunately, some Web pages require JavaScript for correct display.

13.8 Enabling Advertisment Blockers

Some Web pages open annoying advertisments. With the help of Konqueror, these windows can be blocked. Proceed as follows:

Procedure 13.3   *Blocking Annoying Advertisments*

1 Start Konqueror.

2 Go to *Settings → Configure Konqueror → AdBlock Filter*.

3 Activate *Enable filters*.

4 Click *Insert*.

5 Enter an expression for the Web page to filter. For example:

```
http://www.example.com/*
```

This filters everything that comes from that URL.

13.9 For More Information

For any questions or problems that arise when working with Konqueror, refer to the application's handbook, which is available from the *Help* menu. Konqueror also has a Web page, located at http://www.konqueror.org.

Browsing with Firefox

14

Included with your SUSE® Linux Enterprise Desktop 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.

14.1 Navigating Web Sites

Firefox has much the same look and feel as other browsers. It is shown in Figure 14.1, "The Browser Window of Firefox" (page 218). 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 14.1   *The Browser Window of Firefox*

14.1.1 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.

14.1.2 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.

14.2 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.

14.2.1 Finding Information on the Web

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

14.2.2 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 in the search bar on the icon.

3 Select *Add Engines* from the menu.

4 Firefox displays a Web page with available search engines. It is also sorted by categories. You can choose from Wikipdedia, Leo, and others. Click the desired search plug-in.

5 Install your search plug-in with *Ok* or abort with *Cancel*.

14.2.3 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 occurence of this phrase. You can find other occurences of the phrase by pressing ⌘F3 or *Find Next* button in the find bar. You can also highlight all occurences by pressing the *Highlight all* button.

14.3 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*.

14.3.1 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 14.2, "Using the Firefox Bookmark Manager" (page 221).

Figure 14.2 *Using the Firefox Bookmark Manager*
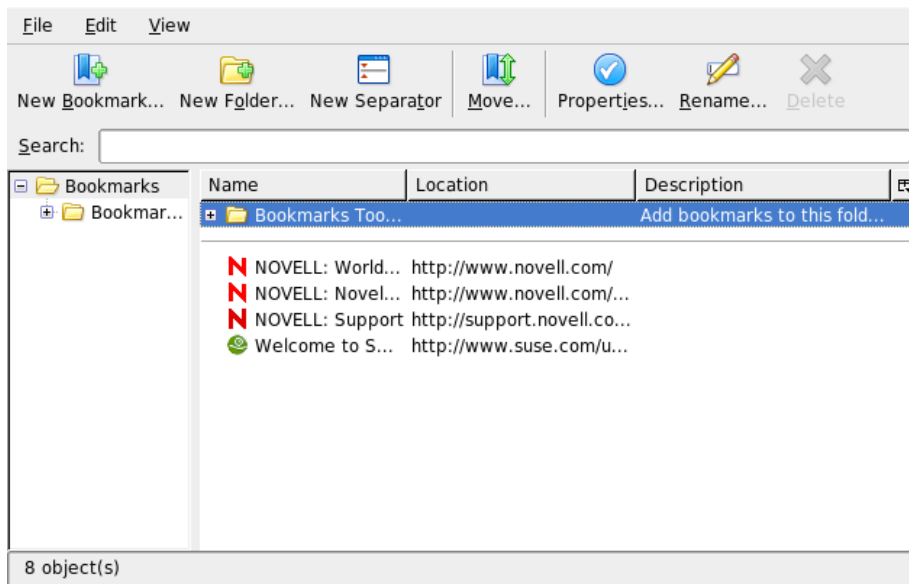
To open the bookmark manager, click *Bookmark → Manage Bookmarks*. A window opens and displays your bookmarks. With *New Folder*, create a new folder with a name and a description. If you need a new bookmark, click *New Bookmark*. This lets you insert the name, location, keywords, and also a description. 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*.

14.3.2 Importing Bookmarks from Other Browsers

If you used a different browser in the past, you probably want to use your preferences and bookmarks in Firefox, too. At the moment, you can import from Netscape 4.x, 6, 7, Mozilla 1.x, and Opera.

To import your settings, click *File → Import*. Select the browser from which to import settings. After you click *Next*, your settings are imported. Find your imported bookmarks in a newly created folder, beginning with From.

14.3.3 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 *Add NAME OF THE FEED as Live Bookmark*. A dialog box opens where you can 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 14.1   *Adding a Live Bookmark Manually*

1 Open the bookmark manager with *Bookmarks → Manage 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, for example, `http://www.novell.com/newsfeeds/rss/coolsolutions.xml`. Firefox updates your live bookmarks.

4 Close your bookmark manager.

14.4 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 *Downloads* tab. Here, determine the download folder, how the manager behaves, and some configuration of file types.

14.5 Customizing Firefox

Firefox can be customized extensively. You can install extensions, change themes, and add smart keywords for your online searches.

14.5.1 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 unbloated.

To add an extension, click *Tools → Extensions*. In the bottom-right corner, click *Get More 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 14.3 *Installing Firefox Extensions*
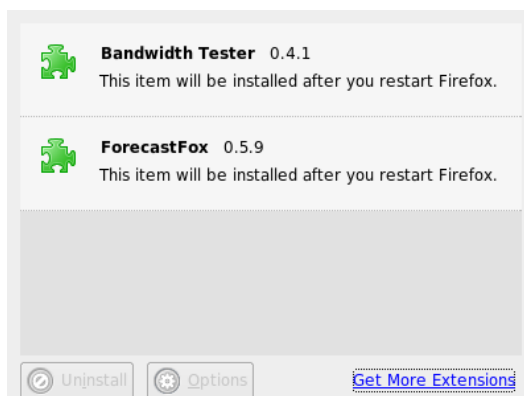
14.5.2 Changing Themes

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 → Themes*.

2 In the new dialog that appears, click *Get More Themes*. If you already installed a theme, find it in the list, as in Figure 14.4, "Installing Firefox Themes" (page 224).

Figure 14.4   *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, a dialog appears and informs you about your list of themes. Activate the new theme with *Use Theme*.

7 Close the window and restart Firefox.

If a theme is installed, you can always switch to a different theme without restarting by clicking *Tools → Themes* then *Use Theme*. If you do not use a theme anymore, you can delete it in the same dialog with *Uninstall*.

14.5.3 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 *Quick Searches*, but any other level is also appropriate.

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.

14.6 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*.

14.7 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

15

KGet is the download manager for KDE. It manages your transfers in a window. You can stop, resume, delete, queue, and add transfers. Start KGet from the main menu or by pressing `Alt` + `F2` then entering `kget`.

When KGet is started for the first time, you can choose to have it integrated with Konqueror. If you integrate KGet with Konqueror, KGet is added to the system tray as an icon with a downward arrow. Click this arrow to view KGet transfers.

Figure 15.1   *KGet*
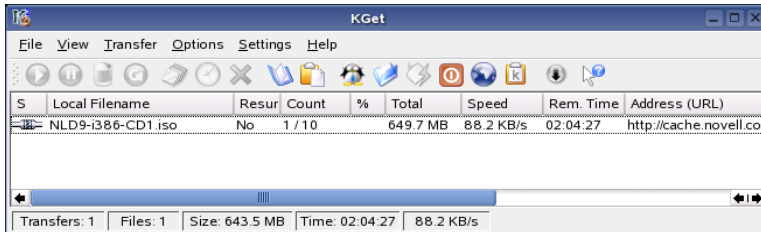
15.1 Adding Transfers to the List

To add a transfer, click *File → Paste*. Specify a URL then click *OK*. Finally, select where to save the downloaded file. The entry for the transfer is added to the main window of KGet and the download starts. Another way to add a transfer is to simply drag a file (for example, from an FTP server) from Konqueror and drop it in the main KGet window.

Modify the preferences for your downloads by clicking *Settings* → *Configure KGet*.

15.2 Timer-Controller Transfers

You can configure KGet to perform transfers at a specific time.

1 Start KGet.

2 Click *Options* → *Offline Mode*. All transfers inserted from this point are not
started immediately but are queued.

3 To start the clock, double-click the entry then click *Advanced*.

4 Enter the day, month, year, and time to start the transfer, click the *Timer* icon,
then close the dialog.

5 After making the desired settings for all your transfers, click *Options* → *Offline
Mode* to set KGet back in online mode.

The transfers should start at the specified times.

Reading News Feeds with Akregator

16

If you want to get the latest news, get your information with a news feed reader. One reader is Akregator. It connects to a server that contains a newsticker file and downloads it then shows the headlines and sometimes a small text to give an overview. See Figure 16.1, "Akregator Showing Some News" (page 229). If interested in this news, click it and view it in a separate tab.

Figure 16.1 *Akregator Showing Some News*
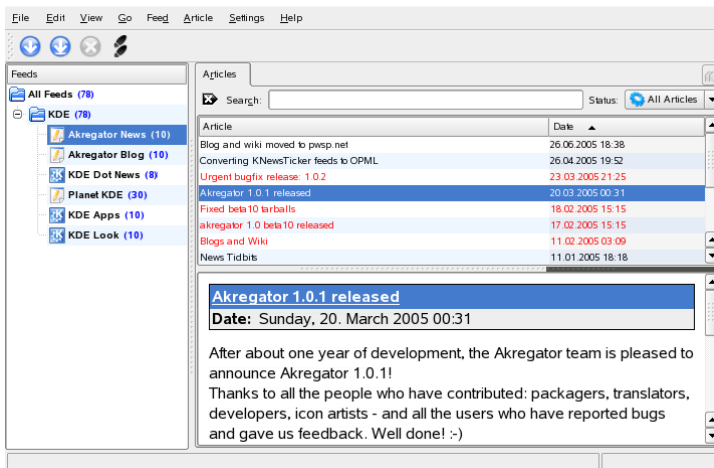
Akregator contains some predefined news feeds for KDE. You can add news feeds manually or some Web sites announce it. For example, a Web site with feed support contains an orange rectangle in the bottom right corner. Click it to open a pop-up menu where you can select *Add Feed to Akregator*. Sometimes a Web site does not announce

that it supports a news feed. Then you can search this site with some keywords like feed or rss. Sometimes you are successful and can obtain a link.

To add a news feed, do the following:

Procedure 16.1   *Adding a News Feed to Akregator*

    1 Determine the URL of your news feed. Normally this can be found on your preferred Web site. More links can be found in the KNewsticker tool, an applet for the KDE panel.

    2 Open Akregator by pressing `Alt` + `F2` and entering akregator. It opens a new window with the list of all feeds in your configuration. If you close this window, it docks in the system tray.

    3 Create a new folder with *Feed → New Folder*. This gives you the opportunity to group your feeds in categories.

    4 Name your new folder.

    5 Click this folder and choose *Feed → Add Feed*.

    6 Insert the feed URL, for example, http://www.novell.com/newsfeeds/ rss/coolsolutions.xml. A new window opens where you can change the feed name, URL, or the update interval. With the *Feed Archive* tab, change how long articles should be stored.

    7 Proceed with *Ok*. Akregator downloads the latest articles.

After the download of the latest headers is finished, you can click an entry. Depending on the feed, this can list a small summary or just a link. With *Complete Story*, read the entire article.

Check for new news manually with *Fetch Feed*. Another option is to specify an update interval. Configure this by clicking *Settings → Configure Akregator*. A window opens where you can select the interval in *General → Use interval fetching*. Confirm with *Ok*.

You can read the complete story in Akregator or an external browser. Clicking *Complete Story* lets you select which.

Part IV. Multimedia

Manipulating Graphics with The GIMP

17

The GIMP (*The GNU Image Manipulation Program*) is a program for creating and editing pixel 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, make 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 for ideas of where to find more information about the program.

17.1 Graphics Formats

There are two main formats for graphics—pixel and vector. The GIMP works only with pixel graphics, which is the normal format for photographs and scanned images. Pixel graphics consist of 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.

Unlike pixel graphics, vector graphics do not store information for all individual pixels. Instead, they store information about how image points, lines, or areas are grouped together. Vector images can also be scaled very easily. The drawing application of OpenOffice.org, for example, uses this format.

17.2 Starting GIMP

Start GIMP from the main menu. Alternatively, enter `gimp &` in a command line.

17.2.1 Initial Configuration

When starting 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.

17.2.2 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, GIMP saves your window layout when you exit. Dialogs left open reappear when you next start the program.

The Toolbox

The main window of GIMP, shown in , 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 17.1   *The Main Window*
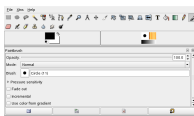
The current foreground and background color are shown in two overlapping boxes. The default colors are black for the foreground and white for the background. Click the box to open a color selection dialog. Swap the foreground and background color with the bent arrow symbol to the upper right of the boxes. 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.

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. *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.

17.3 Getting Started in GIMP

Although 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.

17.3.1 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 open. A resolution of 72 pixels per inch corresponds to 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*. Select the *Fill Type* for the new image. *Foreground Color* and *Background Color* use the colors selected in the toolbox. *White* uses a white background in the image. *Transparent* creates a clear 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.

17.3.2 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 URI of the desired image. Then click *OK* to open the selected image or press *Cancel* to skip opening an image.

17.3.3 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: scanning device*.

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 grayscale or color image and the required scan resolution. The higher the resolution, the better the quality of the scanned image is. 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. Changes are visible in the preview immediately. Once all settings have been made, click *Scan* to scan the image.

17.3.4 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.

17.4 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, 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.

PAT

This is the format used for GIMP patterns. Saving an image in this format enables using the image as a fill pattern in GIMP.

JPG

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. 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.

17.5 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 17.2   *The Print Dialog*
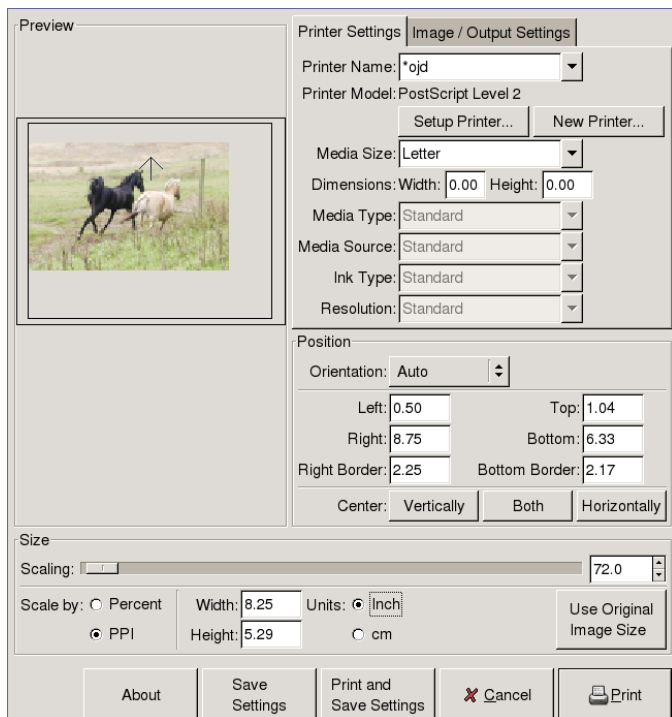
In the bottom portion of the window, adjust the image size. Press *Use Original Image Size* to take these settings from the image itself. This is recommended if you set an appropriate print size and resolution in the image. Adjust the image's position on the page with the fields in *Position* or by dragging the image in *Preview*.

When satisfied with the settings, press *Print*. To save the settings for future use, instead use *Print and Save Settings*. *Cancel* aborts printing.

17.6 For More Information

The following resources are useful for a GIMP user, 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`.

- 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 GIMP version. Although some aspects of the program have changed, it can provide excellent guidance for image manipulation. An online version is available at `http://gimp-savvy.com/BOOK/`.

Using Digital Cameras with Linux

18

Managing photos from your camera can be fun if you have the right tools. Linux offers several handy utilities for sorting and organizing your photographs. These include gphoto2, Konqueror, Digikam, and f-spot.

A comprehensive list of supported cameras is available at `http://www.gphoto` `.org/proj/libgphoto2/support.php`. If gphoto2 is installed, retrieve the list with the command `gphoto2 --list-cameras`. Get information about the available commands with `gphoto2 --help`.

TIP: Unsupported Cameras

If you do not find your camera in the list from gphoto, do not despair. It is very likely that your camera is supported as a USB mass storage device. Find more information in Section 18.2, "Accessing the Camera" (page 242).

18.1 Connecting to the Camera

The fastest and most convenient way to connect digital cameras to the computer is USB, provided the kernel, the camera, and the computer support it. The standard SUSE kernel provides this support. A suitable cable is also required.

Simply connect the camera to the USB port and turn on the camera. You may need to switch your camera to a special data transfer mode. For this procedure, consult the manual of your digital camera.

18.2 Accessing the Camera

There are three possibilities for accessing the pictures on the camera. It depends on your camera and which protocol it supports. Usually it is USB mass storage, which is handled by the hotplug system, or PTP (also known as PictBridge). Some camera models do not work with either protocol. To support these, gphoto2 includes specific drivers.

It is easiest if your camera supports USB mass storage. Read the documentation of your camera if you are unsure if this is possible. Some support two protocols, like both PTP and USB mass storage. Unfortunately, there are also some that communicate with a proprietary protocol, which can complicate the tasks. If your camera does not support USB mass storage or PTP, the following descriptions will not work. Try `gphoto2 --list-cameras` and the information at http://www.gphoto.org/.

If your camera can be switched to a USB mass storage device, select this option. After you connect it with the USB port of your computer and turn it on, it is detected by the hotplug system. This takes care of mounting the device automatically, so it is easily accessible. The KDE desktop shows a camera icon after a successful mount.

After the camera is successfully mounted, see a new directory under `/media`, beginning with `usb` and lots of numbers. Each vendor and product has a number, so when you connect a device on your computer it has always the same name. Depending on what you have connected to the USB bus, find different entries. The only problem left is to find the correct entry for your camera. Try to list one of these directories (`DCIM/`*`xxx`*) and see what happens. Each camera has a different tree structure, so there is no general rule. If you can see JPEG files in a directory, you probably found it.

After you find your correct directory, you can copy, move, or delete the files from your camera with a file manager, such as Konqueror, or simple shell commands (see Section 14.3, "Important Linux Commands" (Chapter 14, *Working with the Shell*, ↑Deployment Guide) and Section 1.4, "Managing Folders and Files with Konqueror" (page 29)).

18.3 Using Digikam

Digikam is a KDE program for downloading photographs from digital cameras. The first time it is run, Digikam asks where to store your photo album. If you enter a direc-

tory that already contains a collection of photographs, Digikam treats each subfolder as an album.

On start-up, Digikam presents a window with two sections: your albums are displayed to the left and the photographs of the current album are displayed to the right. See Figure 18.1, "The Main Window of Digikam" (page 243).

Figure 18.1   *The Main Window of Digikam*
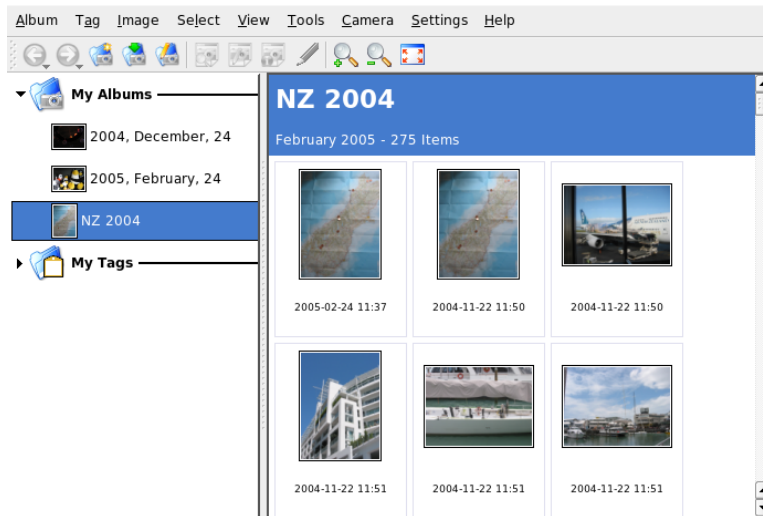

18.3.1 Configuring Your Camera

To set up a camera in Digikam, select *Camera → Add Camera*. First, try to autodetect the camera with *Auto-Detect*. If this fails, browse the list for your model with *Add*. If your camera model is not included in the list, try an older model or use *USB/IEEE mass storage camera*. Confirm with *Ok*.

18.3.2 Downloading Pictures from Your Camera

After your camera has been configured correctly, connect to your camera with the *Camera* menu and the name that you gave in the dialog from

uring Your Camera" (page 243). Digikam opens a window and begins to download thumbnails and displays them as in . Right-click an image to open a pop-up menu with the options to *View*, display some *Properties* or *EXIF Information*, *Download*, or *Delete* the image. With *Advanced*, select renaming options and how the camera-provided information (EXIF) should be handled.

Figure 18.2 *Downloading Pictures from Camera*
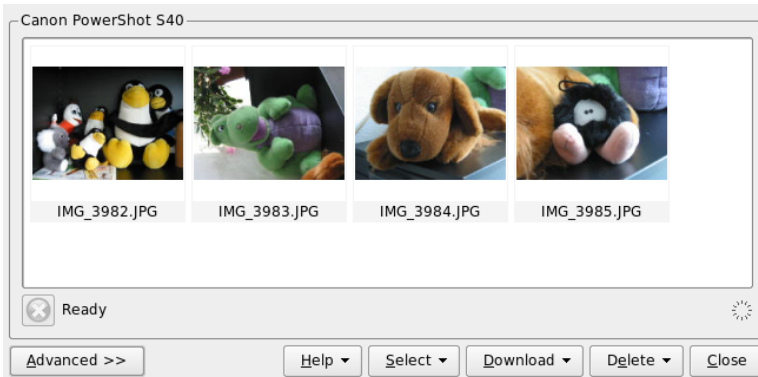
The renaming options can be very convenient if your camera does not use meaningful filenames. You can let Digikam rename your photographs automatically. Give a unique prefix and, optionally, a date, time, or sequence number. The rest is done by Digikam.

Select all photographs to download from the camera by pressing the left mouse button or clicking individual photographs with Ctrl pressed. Selected photographs appear with inverted colors. Click *Download*. Select the destination from the list or by creating a new album with *New Album*. This automatically suggests a filename with the current date. Confirm with *Ok* to start the download process.

18.3.3 Getting Information

Getting information about the photograph is not difficult. A short summary is displayed as a tool tip if you point with the mouse cursor at the thumbnail. For longer information, right-click the photograph and choose *Properties* from the menu. A dialog box opens with three tabs, *General*, *EXIF*, and *Histogram*.

General lists the name, type, owner, and some other basic information. The more interesting part is the *EXIF* tab. The camera stores some metadata for each photograph. Digikam reads these properties and displays them in this list. Find the exposure time, pixel dimensions, and others. To get more information for the selected list entry, press Shift + F1. This shows a small tool tip. The last tab, *Histogram*, shows some statistical information.

18.3.4 Managing Albums

Digikam inserts a *My Albums* folder by default, which collects all your photographs. You can store these into subfolders later. The albums can be sorted by their directory layout, by the collection name that has been set in the album properties or by the date that the albums were first created (this date can also be changed in the properties of each album).

To create a new album, you have some possibilities:

- Uploading new photographs from the camera

- Creating a new album by clicking the *New Album* button in the toolbar

- Importing an existing folder of photographs from your hard disk (select *Album → Import → Import Folders*)

- Right-clicking *My Albums* and selecting *New Album*

After selecting to create an album in your preferred way, a dialog box appears. Give your album a title. Optionally, choose a collection, insert some comments, and select an album date. The collection is a way of organizing your albums by a common label. This label is used when you select *View → Sort Albums → By Collection*. The comment is shown in the banner at the top of the main window. The album date is used when you select *View → Albums → By Date*.

Digikam uses the first photograph in the album as the preview icon in the *My Albums* list. To select a different one, right-click the respective photograph and select *Set as Album Thumbnail* from the context menu.

18.3.5 Managing Tags

Managing lots of different photographs with different albums can sometimes be complex. To organize individual photographs, Digikam provides the *My Tag* system.

For example, you have photographed your friend John at different times and you want to collect all images, independent of your album. This let you find all photographs very easily. First, create a new tag by clicking *My Tags → People*. From the context menu, choose *New Tag*. In the dialog box that appears, enter *John* as title and optionally set an icon. Confirm with *Ok*.

After creating your tag, assign it to the desired pictures. Go to each album and select the respective photographs. Right-click and choose *Assign Tag → People → John* from the menu that appears. Alternativly, drag the photographs to the tag name under *My Tags* and drop them there. Repeat as necessary with other albums. View all the images by clicking *My Tags → People → John*. You can assign more than one tag to each photograph.

Editing tags and comments can be tedious. To simplify this task, right-click a photograph and select *Edit Comments & Tags*. This opens a dialog box with a preview, a comment field, and a tag list. Now you can insert all the needed tags and add a comment. With *Forward* and *Back*, navigate in your album. Store your changes with *Apply* and leave with *Ok*.

18.3.6 Exporting Image Collections

Digikam provides several export options that help you archive and publish your personal image collections. It offers archiving to CD or DVD (via k3b), HTML export, and export to a remote gallery.

To save your image collection to CD or DVD, proceed as follows:

1 Select *File → Export → Archive to CD/DVD*.

2 Make your adjustments in the *Create CD/DVD Archive* dialog using its various submenus. After that, click *OK* to initiate the burning process.

    a *Selection*: Determine which part of your collection should be archived by selecting albums and tags.

b *HTML Interface*: Decide whether your image collection should be accessible via an HTML interface and whether autorun functionality should be added to your CD/DVD archive. Set a selection title and image, font, and background properties.

c *Media Volume Descriptor*: Change the settings for volume description, if necessary.

d *Media Burning*: Adjust the burning options to your needs, if necessary.

To create an HTML export of your image collection, proceed as follows:

1 Select *File → Export → HTML Export*.

2 Adjust the settings in *Create Image Galleries* to your needs, using the various submenus. When you are done, click *OK* to initiate the gallery creation.

    a *Selection*: Determine which part of your collection should be archived by selecting albums and tags.

    b *Look*: Set the title and appearance of your HTML gallery.

    c *Album*: Determine the location of the gallery on disk as well as image size, compression, format, and the amount of metadata displayed in the resulting gallery.

    d *Thumbnails*: As with the target images, specify size, compression and file type for the thumbnails used for gallery navitation.

To export your collection to an external image gallery on the Internet, proceed as follows:

1 Get an account for an external web site holding your gallery.

2 Select *File → Export → Export to Remote Gallery* and provide URL, username, and password for the external site when asked for them.

Digikam establishes a connection to the site specified and opens a new window called *Gallery Export*.

3 Determine the location of your new album inside the gallery.

4 Click *New Album* and provide the information requested by Digikam.

5 Upload the images to the new album with *Add Photos*.

18.3.7 Useful Tools

Digikam provides several tools to simplify some tasks. Find them in the *Tools* menu. The following is a small selection of the available tools.

Creating a Calendar

If you want to please someone, a custom calendar can be a nice gift. Go to *Tools → Create Calendar*, which opens a wizard dialog like that in Figure 18.3, "Creating a Template for a Calendar" (page 249).

Customize the settings (paper size, image position, font, etc.) and confirm with *Next*. Now you can enter the year and select the images to use. After clicking *Next* again, see a summary. The final *Next* opens the KDE Printer dialog. Here, decide if you want to see a preview, save as PDF, or just print directly.

Figure 18.3 *Creating a Template for a Calendar*
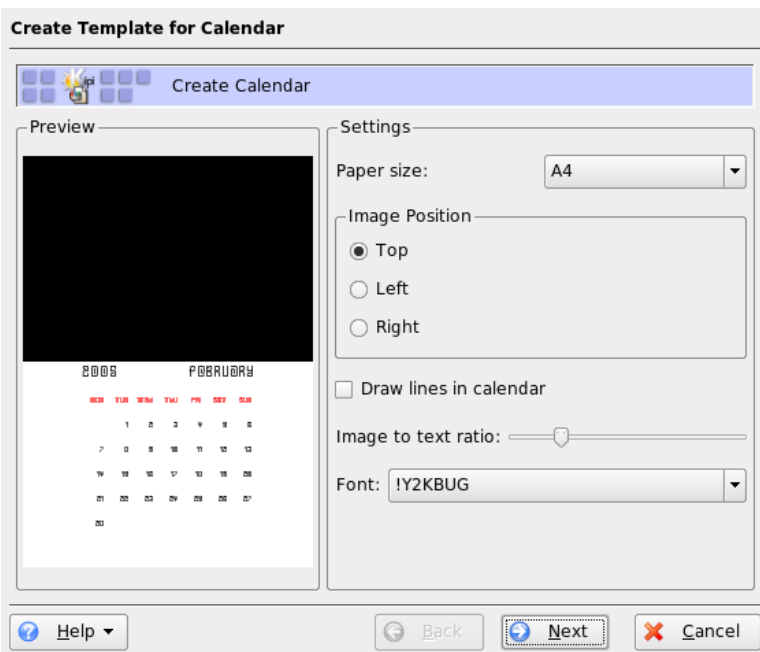
Finding Duplicate Photographs

Sometimes you photograph similar scenes repeatedly and want to keep only the best shots. This is the perfect task for the *Find Duplicate* plug-in.

Go to *Tools → Find Duplicate Images*. Select the albums or tags to handle. Under *Method & Cache*, choose the search method: a more accurate or a faster method. After you confirm with *Ok*, Digikam proceeds with the investigation.

If it finds some duplicates, it shows the result in a window like Figure 18.4, "Results of Find" (page 250). Decide which images to delete by activating the desired check boxes then clicking *Delete*. Leave the window with *Close*.

Figure 18.4   *Results of Find*
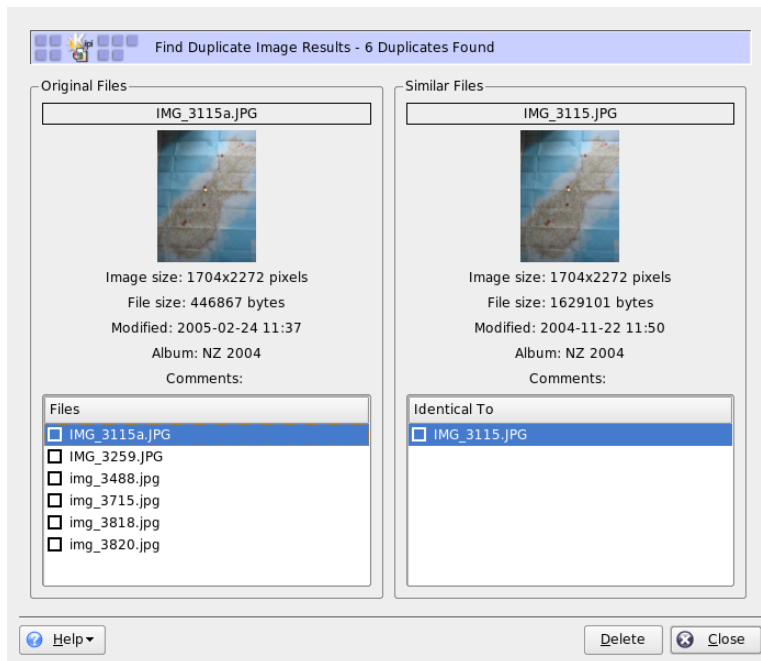
Batch Processes

Digikam also provides some batch processes that perform a specific task on lots of files. This can be renaming, converting, resizing, and much more. Find them under *Tools → Batch Processes*.

18.3.8 Basic Image Viewing and Editing with Digikam

Digikam includes its own lean image viewing and editing program. It automatically opens if you double-click an image's thumbnail.

Use this tool to do some basic image editing on the images you just downloaded from your camera. You can crop, rotate or flip the image, do some basic color adjustments,

apply various colored filters (for example, to export a colored image to black and white), and efficiently reduce red eyes in portrait shots.

The most important menus are:

Image

Use *Edit Comments & Tags* to enter comments to a particular image and to assign a tag (category) to this image. *Properties* takes you to a window consisting of three tabs providing general information, EXIF information, and the histogram of this image.

Fix

This menu contains some of the editing functions most needed in digital photography. *Colors* takes you to a submenu where you can modify all basic color settings. You can also blur or sharpen either the entire picture or just a part of the image you selected. To reduce red eyes in a portrait shot, roughly select the eye region of the face by just clicking and holding the left mouse pointer and gradually expanding the selection, select *Red Eye Reduction* and choose either mild or aggressive reduction depending on whether you selected a whole region or just the eyes.

Transform

The *Transform* menu offers the crop, rotate, flip, and resize functions. You can also use the *Aspect Ratio Crop* option to produce crops in a fixed aspect ratio.

Filters

If you need to transform your color shots into black and white or want to achieve an aged look in your photographs, check out the *Filters* menu and choose from the various export options.

A more detailed description of this tool can be found in Digikam's online help in *digiKam Image Editor*, which can be reached with the *Help* button in Digikam's menu bar.

TIP: Advanced Image Processing

Professional image editing can be done with the GIMP. More information about The GIMP can be found in Chapter 17, *Manipulating Graphics with The GIMP* (page 233).

18.4 For More Information

For more information about using digital cameras with Linux, refer to the following Web sites:

- http://digikam.sourceforge.net/—Information about Digikam

- http://www.gphoto.org—Information about gPhoto2

- http://www.gphoto.org/proj/libgphoto2/support.php—A comprehensive list of supported cameras

- http://www.thekompany.com/projects/gphoto/—Information about Kamera, a KDE front-end for gPhoto2

Playing Music and Movies

19

During installation, YaST normally identifies and configures the sound cards of your computer automatically. Otherwise (or if you installed a new sound card), start YaST and configure the sound card manually in the *Sound* module. When your sound card has been configured, you can control the volume and balance with a mixer and start other sound applications.

Linux includes a wide range of sound and multimedia applications. Some of these applications are installed on your Linux system by default. With the applications described here, control the volume and balance of playback and play CDs, music and movie files.

In case one of the listed applications is not installed by default on your system, use YaST to install the missing packages. Use the search function of the YaST package management tool to find the package names.

19.1 Mixers

Mixers provide a convenient means of controlling the volume and balance of the sound output and input of computers. For a description of the default KDE and GNOME mixer applets refer to the KDE and GNOME chapters.

The main difference between the various mixers is the outer appearance of the user interface. However, there are a number of mixers that are designed for specific hardware. One example is envy24control, a mixer for the Envy 24 sound chip. Another one is hdspmixer, which is for RME Hammerfall cards. From the mixers available, select the one that best suits your needs.

> **TIP: Starting the Mixer**
>
> Generally, it is advisable to open a mixer application before opening other sound applications. Use the mixer to test and adjust the control settings for the input and output of the sound card.

19.2 Playing Music Files

In Linux, find a variety of programs for playing music files, such as OGG or WAV files. KDE offers amaroK and JuK, for example.

19.2.1 amaroK Media Player

The amaroK media player handles various audio formats and plays the streaming audio broadcasts of radio stations on the Internet. The file types supported depend on the engine used, currently xine or Helix.

On first start, amaroK launches a *First-Run Wizard*, which helps set up amaroK. In the first step, configure your preferred look and feel for amaroK. Choose to display player and playlist in separate windows (see Figure 19.1, "The amaroK Media Player" (page 255)) or combine their functionality in one single window (default). In the second step, determine where amaroK should look for your music collection. amaroK scans these folders for playable media. By default, amaroK is configured to scan the selected folders recursively (to include all their subdirectories in the scan), monitor changes to the content of the selected directories, and import any playlists located there. All the settings made with the wizard can be modified later by starting the wizard again with *Tools → First-Run Wizard*.

Figure 19.1   *The amaroK Media Player*
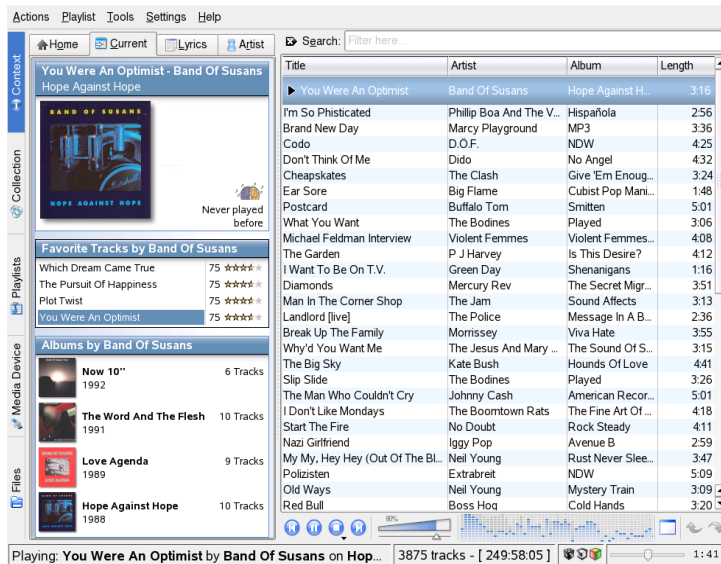
Quick Start

On start-up, amaroK scans the folders that are part of your collection for music files. Although you can use amaroK without building a collection, it is recommended to do so, because most of the powerful, advanced features are only available with an existing collection.

The amaroK main window is divided into two parts. The sidebar browsers on the left contain different views of your music collection and your playlists, a file browser, and an interface to an iPod. Change the browser by clicking a tab on the far left. The right part contains the playlist window and, below it, the player (if you have not configured it to be shown in a separate window).

To play music, first create a playlist. Just drag and drop items from any of the sidebar browsers to the playlist window. Use ⎃Shift⎄ or ⎃Ctrl⎄ to select multiple items. Double-click an item in the playlist to play it. You can add or delete items from the list during playback. Use the icons in the bottom right corner to *Undo* and *Redo* changes or to *Clear* the entire list.

The Sidebar Browsers

Context

With this tab, view information and statistics about your collection and the current artist. Switch to different views using the tabs on top of the *Context* browser. The *Home* view provides statistics on your listening habits, listing your favorite, newest, and least-played tracks or albums. *Current* provides data related to the track currently being played, such as the album cover (see Section "The Cover Manager" (page 258)) and the listening statistics related to this track. If available, *Lyrics* displays the lyrics of the track currently played. You need to be connected to the Internet to use this feature. *Artist* shows information about the artist. This information is fetched from Wikipedia, so an Internet connection is needed as well.

Collection

Use this view to manage and display your personal collection of titles. The toolbar on top of the browser allows you to configure the way your collection is displayed and to rescan or reorganize the collection. Define the order your titles are displayed in the browser with *Group By*. You can choose between predefined criteria or create your own sort criteria using *Primary*, *Secondary*, and *Tertiary*. The next two icons let you toggle between tree and flat view. Use the update icon to rescan your entire collection for changes and add or delete folders to scan by clicking the wrench icon.

If you are searching for a particular album, title, genre, or year, use *Filter here*. The selection in the browser is adjusted as you type. You can only search in criteria used to group the collection. If you have grouped your collection by *Artist / Album*, it is not possible to search for titles belonging to a certain genre.

Playlists

You can access different playlists with the playlist browser. *Playlists* holds your personal playlists found in your collection folders. Every time you create and save a new playlist from the playlist window, it appears here. Right-click to open a menu where you can manually add a new playlist or a subfolder. To add new items from the playlist window to an existing playlist, just drag and drop them on the playlist in the browser window.

IMPORTANT: Sharing Playlists with Other Players

Save playlists in `m3u` or `pls` format, so you can share them with any other players using these formats.

Smart Playlists offer various views of your collection, such as tracks never played, newest tracks, or tracks by genre. Right-click to add subfolders or to create your own smart playlists.

Radio Streams lets you listen to live radio streams from the Internet. An extensive list is already shipped with amaroK. Right-click to add more or create subfolders.

Podcasts imports podcasts to amaroK. Right-clicking opens a menu where you can add podcasts and subfolders, refresh all podcasts, or set the scan interval.

At the bottom of the playlist browser window, you can *Enable dynamic mode* and configure it with *Show Options*. Dynamic mode is a feature that allows you the flexibility of picking music from your entire collection while keeping a relatively small playlist that is easy to maintain. Refer to the online documentation (open it with F1) for details.

Media Device

> If you own an iPod, you can use this browser to play music from it or to add music from your collection to the iPod. It must be mounted at `/mnt/ipod` before starting amaroK. To listen to tracks from the iPod, drag and drop them from the list view to the playlist window. To add tracks from the collection to the iPod, drag tracks from the playlist window to the list view.

File Browser

> This tab opens a file browser. It corresponds to the standard KDE file selector dialog with the usual controls for navigating the file system. Enter a URL or a path directly into the text input field. From the contents displayed, drag elements to the playlist to include them. You can also perform a recursive search for a file in a given directory. To do so, enter a text string for the title and the location at which to start the search. Then select *Search* and wait for the results to appear in the lower section of the window.

The Cover Manager

With amaroK, you can assign a cover to each album of your collection. With the *Cover Manager*, easily add, delete, and retrieve album covers.

Start the cover manager with *Tools → Cover Manager*. A tree view in the left part of the window lists all artists in your collection. The main part of the window lists the covers of all albums. To filter the covers displayed, click an individual artist in the tree view or enter a term in the input field at the top of the window. Use *View* to toggle between displaying all albums, albums with covers, or albums without covers.

There are three different methods for assigning covers to the albums:

Automatically Assign Covers
>   amaroK can automatically fetch all missing covers displayed in the main windows from Amazon. Use *Amazon Locale* to determine from which Amazon Web server the covers should be fetched then click *Fetch Missing Covers*.

> ### IMPORTANT: Proper Tagging Needed
>
> amaroK fetches the covers from Amazon using the query string `Artist - Album`. This information is extracted from the tags of your music files. The better they are tagged, the better the hit rate is when automatically fetching covers.

Manually Choose a Cover Fetched from Amazon
>   If you want more control over what image to use and what query string to use to retrieve a cover, right-click an album in the main window and choose *Fetch from amazon*. *Next Cover* lets you cycle through all images available. *Save* selects the actual cover and assigns it to the album selected. If you are not satisfied with the covers displayed, use *New Search* to refine the search. Use *Amazon Locale* from the toolbar of the main window to determine from which Amazon Web server the covers should be fetched.

Manually Assign Covers
>   If you already have your own cover images, you can assign them by right-clicking an album and choosing *Set Custom Image*.

Visualizations

amaroK comes with a number of visualizations that display a graphical effect for the music played. Native amaroK visualizations are displayed in the player window. Cycle through the various available display modes by clicking the animation.

In addition to the above, amaroK also supports the visualization plug-ins of the XMMS media player. To use these, first install the `xmms-plugins` package then select *Tools → Visualizations* from the amaroK menu. This opens a window listing the available plug-ins. XMMS plug-ins are always displayed in separate windows. In some cases, there is an option to display them in full-screen mode. For some plug-ins, you may not get a smooth visual effect unless you use a 3D-accelerated graphics card.

The amaroK Tray Icon

Like other KDE applications, amaroK adds an icon to the KDE system tray. You can use this icon to control a large number of amaroK's features. Hovering the mouse over the icon displays information about the track currently played. A single left-click closes the application window without affecting playback. Click again to reopen the window. Clicking with the middle mouse button pauses playback—middle-click again to resume playback. Right-clicking opens a context menu where you have access to the player controls and can exit amaroK. Scrolling the mouse wheel changes the playback volume.

Using the Shift and Ctrl keys together with the mouse gives you access to more advanced features. Holding Shift while scrolling the mouse wheel seeks through the current track. Holding Ctrl while scrolling the mouse wheel skips through tracks in the playlist.

You may also drag items and drop them on the tray icon to add them to the current playlist. A pop-up menu opens, asking whether to append the track to the playlist, append and play it, or queue it after the current track.

19.2.2 JuK Jukebox

JuK (`kdemultimedia3-jukebox` package) is a jukebox application that lets you manage your music file collection and playlists. JuK maintains a list of all files it knows about. This is called the collection list. The list is specific to JuK and is not shared with other applications. Independent of the collection list are playlists. You can have as many

playlists as you want and you can share your JuK playlists with other media players. You can also edit the tags of your music files.

Start JuK with the main menu or press [Alt] + [F2] and enter `juk`. Find more information about JuK in the online help.

19.3 Handling Audio CDs

There are many ways to listen to your favorite music tracks. Either play a CD or play digitized versions of them. The following section features some CD player applications as well as some applications that can be used for digitizing audio CDs.

For information about how to create your own CDs, refer to

IMPORTANT: CDDA and Analog CD Playback

There are two different ways of playing audio CDs. CD and DVD drives capable of analog CD playback read the audio data and send it to the sound output device. Some external drives connected via PCMCIA, FireWire, or USB need to use CDDA (Compact Disk Digital Audio) to extract the audio data first then play it as digital PCM. The players featured in the following sections do not support CDDA. Use XMMS if you need CDDA support.

19.3.1 KsCD—Audio CD Player

KsCD is an easy-to-use audio CD player. Press [Alt] + [F2] and enter `kscd` to start the application. KsCD integrates into your KDE panel and can be configured to start playing automatically after a CD has been inserted. To access the configuration menu, select *Extras → Configure KsCD*. Fetch album and track information from a CDDB server on the Internet if KsCD is configured accordingly. You can also upload CDDB information to share it with others. Use the *CDDB* dialog for information retrieval and upload.

Figure 19.2 *The KsCD User Interface*
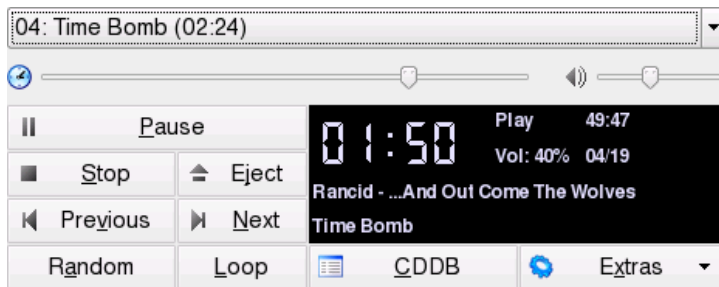
19.3.2 Compressing Audio Data: Ripping

Audio compression can be handled by various tools. The following sections feature a command line approach to encoding and playing audio data as well as some graphical applications capable of audio compression.

Command Line Tools for Encoding and Playback of Audio Data

Ogg Vorbis (package `vorbis-tools`) is a free audio compression format that is now supported by the majority of audio players and even portable MP3 players. The Web page of the project is http://www.xiph.org/ogg/vorbis.

Your system comes with several tools supporting Ogg Vorbis. `oggenc` is a command line tool used for encoding WAV files to Ogg. Just run `oggenc` *myfile.wav* to transform a given `.wav` file into Ogg Vorbis. The `-h` option displays an overview of the other parameters. Oggenc supports encoding with a variable bit rate. In this way, an even higher degree of compression can be achieved. Instead of the bit rate, specify the desired quality with the parameter `-q`. `-b` determines the average bit rate. `-m` and `-M` specify the minimum and maximum bit rate.

ogg123 is a command line Ogg player. Start it with a command like `ogg123` *mysong.ogg*.

Compressing Audio Data Using KAudioCreator

KAudioCreator is a lean CD ripper application (see Figure 19.3, "Ripping Audio CDs with KAudioCreator" (page 262)). Once started, it lists all the tracks of your CD in the *CD Tracks* tab. Select the tracks to rip and encode. To edit the track information, use the *Album Editor* under *File → Edit Album*. Otherwise just start the ripping and encoding with *File → Rip Selection*. Watch the progress of these jobs using the *Jobs* tab. If configured accordingly, KAudioCreator also generates playlist files for your selection that can be used by players like amaroK, XMMS, or Helix Banshee.

Figure 19.3   *Ripping Audio CDs with KAudioCreator*
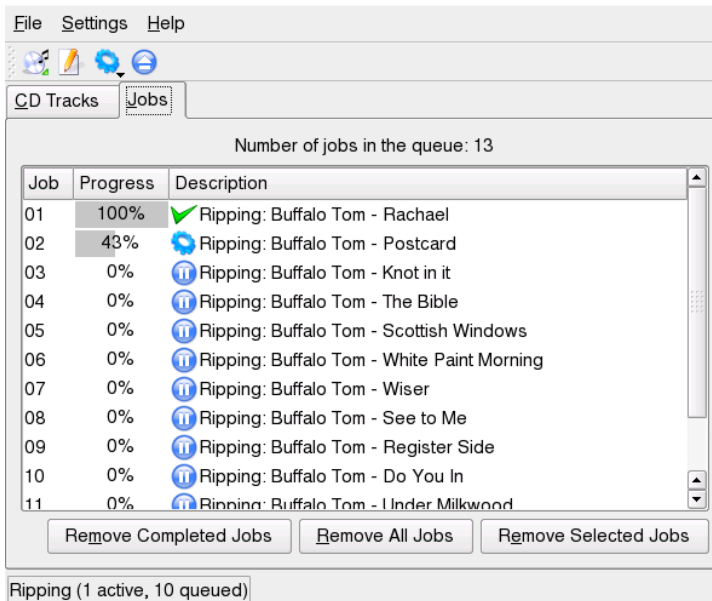
Compressing Audio CDs Using Konqueror

Before you start the actual ripping process with Konqueror, configure the handling of audio CDs and the Ogg Vorbis encoder in the KDE Control Center. Select *Sound & Multimedia → Audio CDs*. The configuration module is divided into three tabs: *General*, *Names*, and *Ogg Vorbis Encoder*. Normally, a suitable CD device is detected automatically. Do not change this default setting unless the autodetection failed and you need to set the CD device manually. Error correction and encoder priority can also be set

here. The *Ogg Vorbis Encoder* tab determines the quality of the encoding. To configure online lookup of album, track, and artist information for your ripped audio data, select *Add Track Information*.

Start the ripping process by inserting the CD into the CD-ROM drive and entering `audiocd:/` in the *Location* bar. Konqueror then lists the tracks of the CD and some folders (see Figure 19.4, "Ripping Audio Data with Konqueror" (page 263)).

Figure 19.4   *Ripping Audio Data with Konqueror*
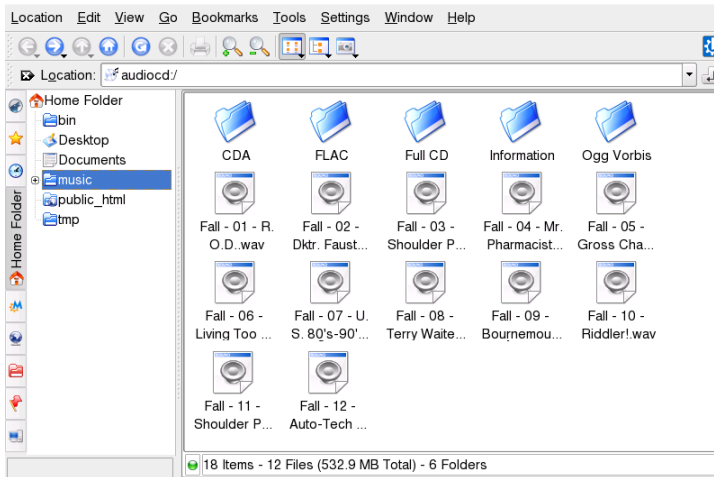
To keep uncompressed audio data on your disk, just select the `.wav` files and drag them into another Konqueror window to copy them to their final destination. To start the Ogg Vorbis encoding, drag the `Ogg Vorbis` folder or files from this folder to another Konqueror window. The encoding starts as soon as you drop the Ogg Vorbis folder at its destination.

19.4 Playing Movie Files

You can choose between several movie players shipped with your SUSE Linux Enterprise Desktop. Kaffeine is the default KDE movie player and can be run with several back-ends, such as Xine and MPlayer.

Figure 19.5 *Kaffeine Main Window*

The formats you can view with Kaffeine depends on the back-end (by default, Xine is used). Xine interprets many of the most common multimedia formats available. For more information, refer to `http://xinehq.de/`.

Kaffeine can also play multimedia streamed over the Internet and can be used as a plug-in for Konqueror. It provides the usual options for playing files in full screen mode, navigating through files, and more. You can also take a snapshot of the video and save it as an image.

Apart from Kaffeine, SUSE Linux Enterprise Desktop also ships RealPlayer for Linux. RealPlayer supports RealAudio, RealVideo, Ogg Vorbis, Theora, and more.

Figure 19.6 *RealPlayer for Linux*

Burning CDs and DVDs

<div style="text-align: right; font-size: 2em; font-weight: bold;">20</div>

K3b is a comprehensive program for writing data and audio CDs and DVDs. Start the program from the main menu or by entering the command k3b. The following sections brief you on how to start a basic burning process to get your first Linux-made CD or DVD.

20.1 Creating a Data CD

To create a data CD, go to *File → New Project → New Data CD Project*. The project view appears in the lower part of the window, as shown in Figure 20.1, "Creating a New Data CD" (page 268). Drag the desired directories or individual files from your home directory to the project folder and drop them there. Save the project under a name of your choice with *File → Save as*.

Figure 20.1 *Creating a New Data CD*
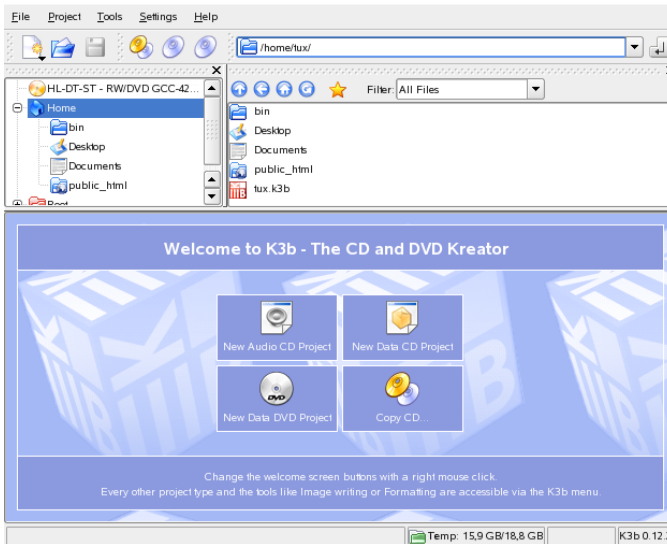
Then select *Burn* from the toolbar or hit Ctrl + B. A dialog with six tabs offering various options for writing the CD opens. See Figure 20.2, "Customizing the Burning Process" (page 268).

Figure 20.2 *Customizing the Burning Process*
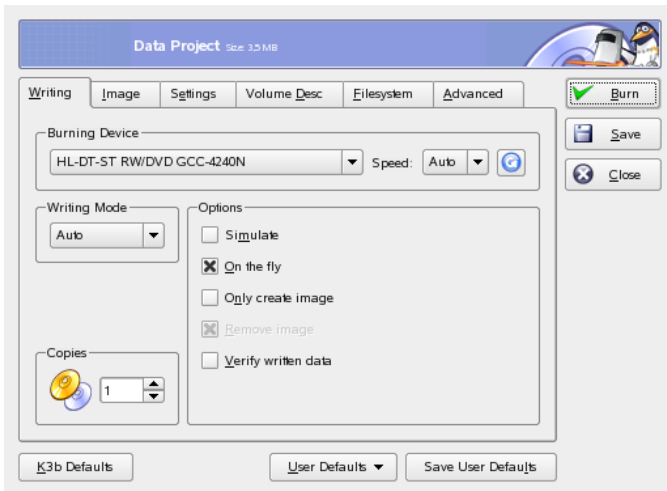
The *Writing* tab has various settings for the burning device, the speed, and the burning options. The following options are offered here:

Burning Device

> The detected writer is displayed under this pop-up menu. You can select the speed here too.

WARNING: Select the Writing Speed with Care

Normally, you should select *Auto*, which chooses the maximum writing speed possible. However, if you increase this value but your system is not able to send the data fast enough, the likelihood of buffer underruns increases.

Writing Mode

> This option determines how the laser writes a CD. In DAO (disk at once) mode, the laser is not deactivated while the CD is written. This mode is recommended for the creation of audio CDs. However, it is not supported by all CD writers. In the TAO mode (track at once), a separate write process is used for each individual track. The RAW mode is not used very often, because the writer does not perform any data corrections. The best setting is *Auto*, because it allows K3b to use the most suitable settings.

Simulate

> This function can be used to check if your system supports the selected writing speed. The writing is performed with the laser deactivated to test the system.

On the Fly

> Burns the desired data without first creating an image file (do not use this feature on low-performance machines). An image file—also known as an ISO image—is a file containing the entire CD content that is subsequently written to the CD exactly as it is.

Only Create Image

> This option creates an image file. Set the path for this file under *Temporary File*. The image file can be written to CD at a later time. To do this, use *Tools → CD → Burn CD Image*. If this option is used, all other options in this section are deactivated.

Remove Image
> Remove the temporary image file from hard disk when finished.

Verify Written Data
> Check the integrity of the written data by comparing the MD5 sums of the original and the burned data.

The *Image* tab is only accessible if the option *Only create image* from the previous tab is selected. If this is the case, you can determine the file where the ISO is written.

The *Settings* tab contains two options: *Datatrack Mode* and *Multisession Mode*. The *Datatrack Mode* options contains configuration of how data tracks may be written. In general, *auto* is considered the best suited method. The *Multisession Mode* is used to append data to an already written but not finalized CD.

In the *Volume Desc* tab, enter some general information that can be used to identify this particular data project, its publisher and preparer, and the application and operating system used in the creation of this project. Under *File system*, specify settings for the file system on the CD (RockRidge, Joliet, UDF). Also determine how symbolic links, file permissions, and blanks are treated. In the *Advanced* tab, experienced users can make additional settings.

After adjusting all settings to your needs, start the actual burning process using *Burn*. Alternatively, save these settings for future use and adjustment with *Save*.

20.2 Creating an Audio CD

Basically, there are no significant differences between creating an audio CD and creating a data CD. Select *File → New Audio CD Project*. Drag and drop the individual audio tracks to the project folder. The audio data must be in WAV or Ogg Vorbis format. Determine the sequence of the tracks by moving them up or down in the project folder.

With the help of CD Text, you are able to add certain text information to a CD, such as CD title, artist name, and track name. CD players that support this feature can read and display this information. To add CD Text information to your audio tracks, select the track first. Right-click and select *Properties*. A new window opens in which to enter your information.

The dialog for burning an audio CD is not very different from the dialog for burning a data CD. However, the *Disc at once* and the *Track at once* modes have greater importance. The *Track at once* mode inserts an intermission of two seconds after each track.

TIP: Preserving Data Integrity

When burning audio CDs, choose a lower burning speed to reduce the risk of burning errors.

After adjusting all settings to your needs, start the actual burning process using *Burn*. Alternatively, save these settings for future use and adjustment with *Save*.

20.3 Copying a CD or DVD

Select *Tools → Copy CD* or *Tools → Copy DVD* depending on your media. In the dialog that opens, make the settings for the reading and writing device as shown in Figure 20.3, "Copying a CD" (page 272). The writing options discussed are also available here. An additional function enables the creation of several copies of the CD or DVD.

Figure 20.3 *Copying a CD*
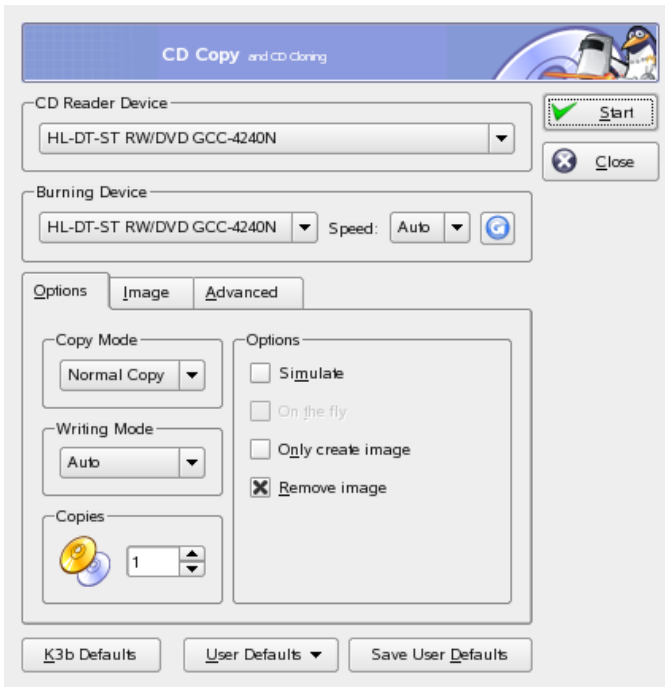
Check *On the fly* to burn the CD as soon as it has been read or select *Only create image* to create an image in the path specified on the *Image* tab in the *Write image file to* option and burn the image later.

20.4 Writing ISO Images

If you already have an ISO image, go to *Tools → CD → Burn CD image*. A window opens in which to enter the location of the *Image to Burn*. K3b calculates a check sum and displays it in *MD5 Sum*. If the ISO file was downloaded from the Internet, this sum shows if the download was successful.

Use the *Options* and *Advanced* tabs to set your preferences. To burn the CD, click *Start*.

20.5 Creating a Multisession CD or DVD

Multisession discs can be used to write data in more than one burning session. This is useful, for example, for writing backups that are smaller than the media. In each session, you can add another backup file. The interesting part is that you are not only limited to data CDs or DVDs. You can also add audio sessions in a multisession disc.

To start a new multisession disc, do the following:

1 Create your data disc first and add all your files. You cannot start with an audio CD session. Make sure that you do not fill up the entire disc, because otherwise you cannot append a new session.

2 Burn your data with *Project → Burn*.

3 In the dialog box that appears, go to the *Settings* tab and select *Start Multisession*.

4 Configure other options if needed. See also Section 20.1, "Creating a Data CD" (page 267).

5 Start the burning session with *Burn*.

After a successful burning process, you have created a multisession disc. As long as the media contains enough space, you can append more sessions if you like. Finish discs only if you are sure you do not need any new sessions or the space is occupied.

NOTE: About Storage Space on Multisession Discs

Be aware that multisession discs need space for bookkeeping all the entries from your sessions. This leads to a smaller amount of available space on your disc. The amount depends on the number of sessions.

20.6 For More Information

Apart from the two main functions described above, K3b offers other functions, such as the creation of DVD copies, reading audio data in WAV format, rewriting CDs, and playing music with the integrated audio player. A detailed description of all available program features is available at `http://k3b.sourceforge.net`.

Finding the Information You Need

<div style="text-align: right">

A

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To support you in your everyday work with SUSE® Linux Enterprise Desktop and to help you explore your Linux system, Novell and the open source community at large have created a wealth of information. We have compiled relevant information and made it available to you in various formats. You can access detailed documentation provided with your product as well as additional information over the Internet.

A.1 Included Documentation

There are several places where you can find online documentation shipped with your product. The KDE desktop includes a help center that offers a wide range of online documentation for your SUSE Linux Enterprise Desktop. There, you can access SLED-specific information as well as application descriptions provided by the open source community.

When installing new software with YaST, the software documentation is installed automatically in most cases and usually appears in the help center of your KDE desktop. However, some applications, such as The GIMP, may have different online help packages that can be installed separately with YaST and do not integrate into the help center.

A.1.1 Using the Help Center

You can access the Help Center in various ways: Clicking the *Help* button in an application or pressing F1 takes you directly to that application's documentation in the Help Center. However, if you start the Help Center from the main menu, by clicking the icon

in the panel, or by entering the `susehelp` command, you are taken to the main window of the Help Center as shown below.

Figure A.1   *Main Window of the Help Center*
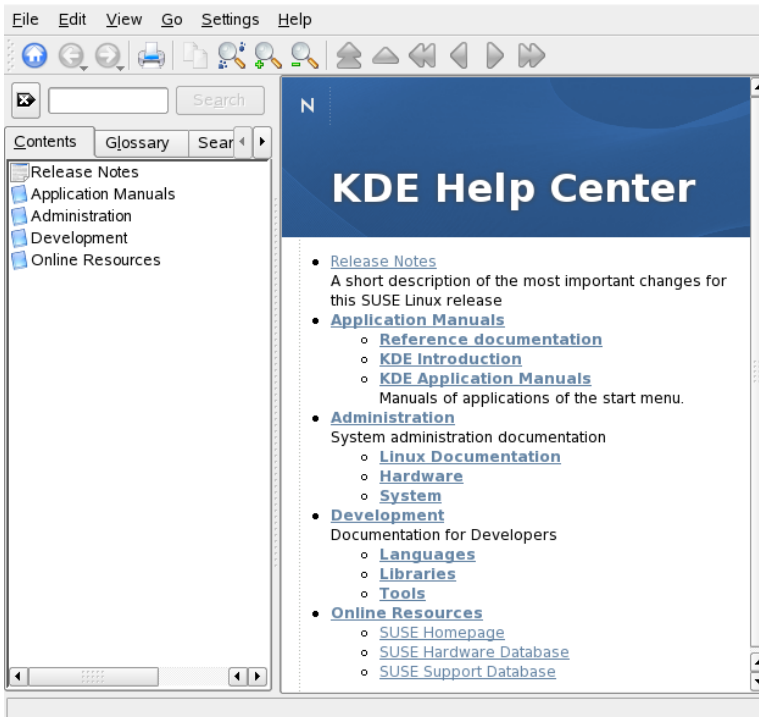
The menu and the toolbar provide options for printing contents from the Help Center, searching the currently displayed page, and navigating and customizing the Help Center. The display field in the right part of the window always shows the currently selected contents, such as online manuals, search results, or Web pages.

The navigation area in the left part of the window contains several tabs.

Contents
> Presents a tree view of all available information sources. The Help Center addresses various target groups, such as users, administrators, and developers. Click the book icons to open and browse the individual categories. Under the heading *Administration*, for example, you can also browse man (manual) and info (information) pages associated with command line programs. The Help Center also provides access to

some online databases that cover special hardware and software issues for your product. All these sources can be searched comfortably once a search index has been generated.

The contents of your Help Center depends on which software packages are currently installed and which languages are selected as your system languages.

Glossary
Provides a quick reference where you can look up the definitions of words that might be unfamiliar to you.

Search Options
Holds options for the full text search of the Help Center. You can combine several search criteria.

To use the full text search, generate a search index and set the search parameters. If the search index has not yet been generated, the system automatically prompts you to do so when you click the *Search* tab or type a search string and click *Search*.

Procedure A.1   *Generating a Search Index*

1 To create a new search index, select *Settings → Build Search Index* from the menu. A window opens, showing a list of documentation currently available in the Help Center.

2 Select the documents to integrate in the search index and click *Build Index*. After the index has been generated, you can use the full text search.

Figure A.2 *Generating a Search Index*
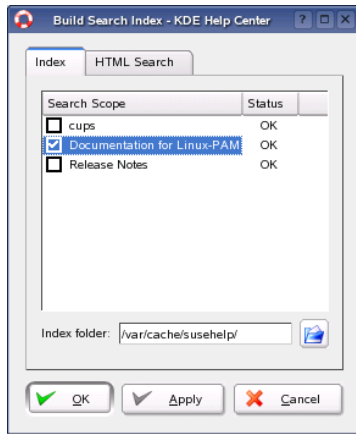
Procedure A.2 *Using the Full Text Search*

1 Click *Search Options* and enter the string to find.

2 To combine your search strings with operands, click *Method* and select the operand to use.

3 To limit the number of hits to display, choose an option from *Max. Results*.

4 To restrict your search to certain types of documentation, choose an option from *Scope*. With *Default*, a predefined selection of documents is searched. *All* includes all types of documents in the search. *Custom* lets you define which documents to include in your search. Just activate the documents you want in the list.

Figure A.3   *Combining Search Options*
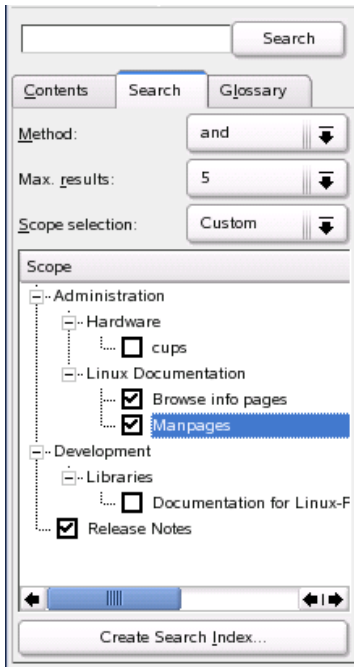
5 When you have set the options according to your wishes, click *Search*. The search results are then displayed as a list of links in the display field and can be navigated with mouse clicks.

A.2 Additional Resources and More Information

You can also access the specific manuals and documentation delivered with your product on the Internet at `http://www.novell.com/documentation/sled10/`.

If you are searching for additional information, you can also refer to the following Internet sites:

- SUSE Support Database [http://en.opensuse.org/SDB:SDB]

- Novell Technical Support Knowledgebase [http://support.novell.com/search/kb_index.jsp]

- Novell Discussion Groups [http://support.novell.com/forums/index.html]

- KDE Documentation Web site [http://www.kde.org/documentation]

- Documentation Web site for KDE applications [http://www.kde-apps.org/]

In addition, general-purpose search engines are often helpful. For example, you might try the search terms "Linux CD-RW help" or "OpenOffice file conversion problem" if you were having trouble with the CD burning or with OpenOffice.org file conversion. Google™ also has a specific Linux search engine at http://www.google.com/linux that you might find useful.

Moving from Windows to Linux

B

If you are coming from Microsoft Windows, take a look at how familiar elements of Windows translate to SUSE® Linux Enterprise Desktop. After logging in, you will notice that the desktop has a familiar layout and recognizable icons, many of them similar to the Windows and Macintosh desktops.

Figure B.1 *KDE Desktop*
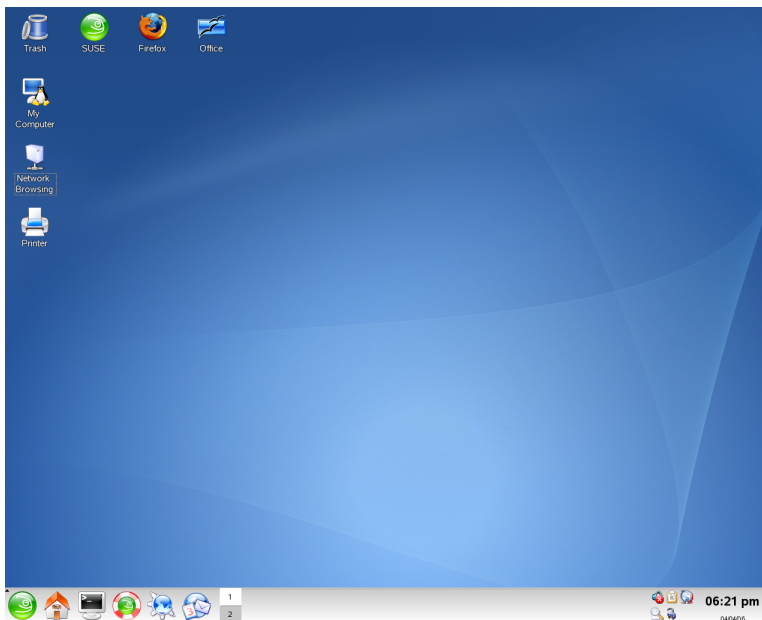
B.1 Starting Applications from the Main Menu

Similar to the Start menu on Windows, you can access all the programs installed on your system from the main menu. To open the menu click the green SUSE icon 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 .

Figure B.2   *Main Menu in KDE*
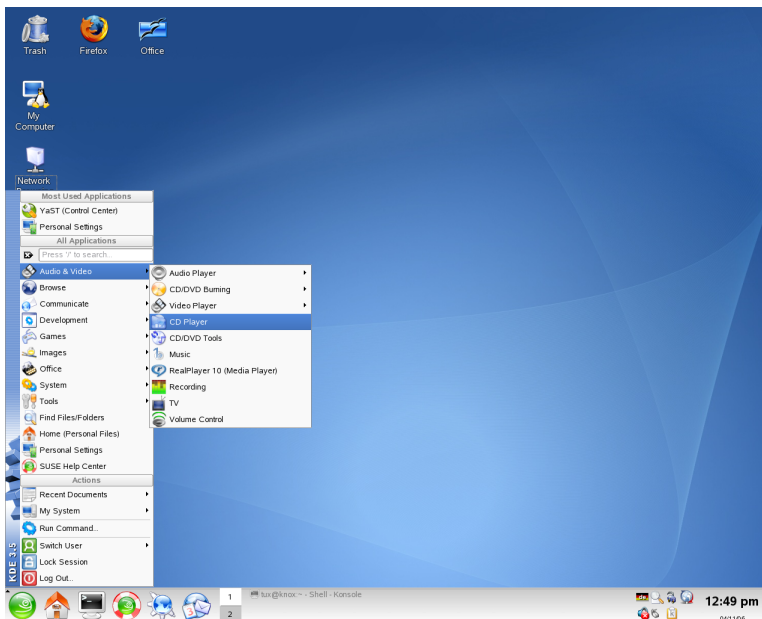
Alternatively, you can also start programs from the command line. Press [Alt] + [F2] to open a dialog where you can enter a command to start the application. The name of the command is often (but not always) the application name written in lowercase.

B.2 Managing Files

To start Konqueror, the default KDE file manager (and Internet browser), press Alt + F2 and enter `konqueror`. To view the contents of your home directory, click *Personal Files*. To open this view directly, use the quick start icon with a house in the panel.

Figure B.3 *Windows Explorer and Konqueror*
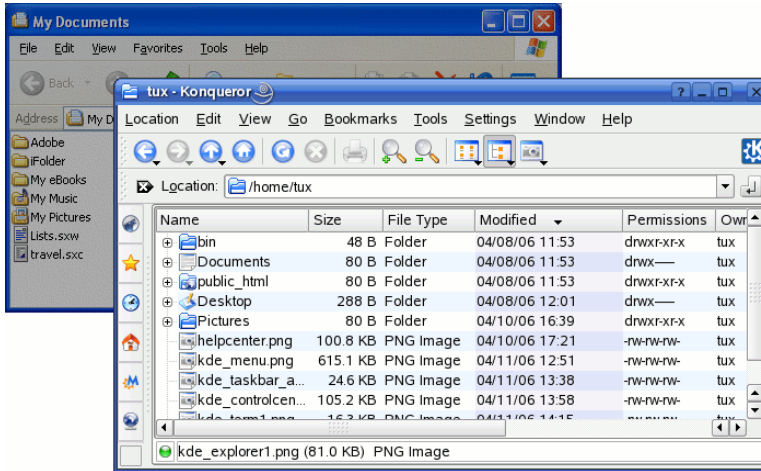
For more information about Konqueror as a file manager, see Section 1.4, "Managing Folders and Files with Konqueror" (page 29).

B.3 Using the Command Line

To run commands in a command line environment, similar to a command prompt on Windows, press Alt + F2 and enter `konsole` or use the quick start icon in the panel.

Figure B.4   *Windows Command Prompt and Konsole Terminal*
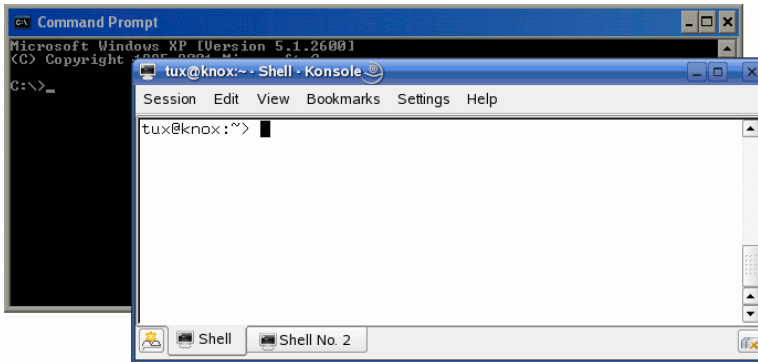
Read more about working with the command line in Chapter 14, *Working with the Shell* (↑Deployment Guide).

B.4 Customizing Your Desktop

To change to the way your KDE desktops looks and behaves, press Alt + F2 and enter kcontrol. Some of the settings you might want to change include the desktop background, screen saver, keyboard and mouse configuration, sounds, and file associations.

Figure B.5   *Windows Control Panel and KDE Control Center*

For more information, see Section 2.2, "Configuring Your Desktop with the Control Center" (page 64).

B.5 Setting Up Printers

To set up or add a printer to SUSE Linux Enterprise Desktop, start the Printing Manager from the main menu. You can add and delete printers, manage print jobs, and configure your print system. For more information, see Chapter 12, *Managing Printers* (page 199).

Figure B.6   *Windows Printers and Faxes and KDE Printing Manager*
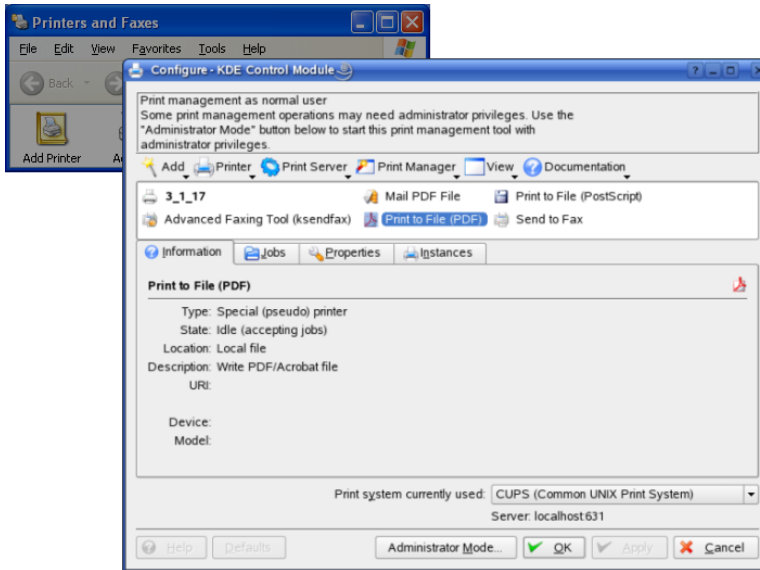
B.6 Switching between Applications

Similar to the taskbar on Windows, the bottom panel in KDE lets you easily switch between open windows. Unlike Windows, KDE lets you set up multiple desktops where each one can run different programs. Switch between them with a single click.

TIP: Using Shortcut Keys

You can also use shortcut keys to switch between your multiple desktops and the applications running. Use the familiar `Alt` + `→|` to switch between applications. With `Ctrl` + `F1`, `Ctrl` + `F2`, etc., switch between desktops.

Figure B.7   *Windows Panel and KDE Panel*
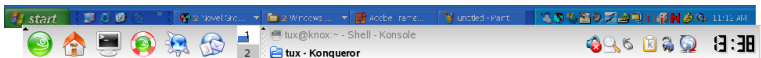
B.7 Accessing Network Resources

From your desktop, you can access files and directories or certain services on remote hosts or make your own files and directories available to other users in your network. SUSE Linux Enterprise Desktop 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 your file manager, Konqueror.

Figure B.8   *Windows My Network Places and Konqueror Network Browsing*
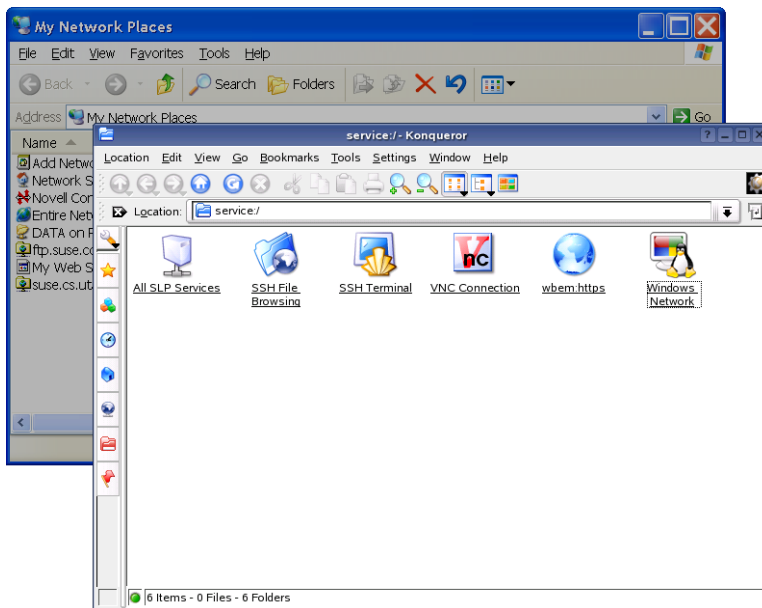
To learn more about the various possibilities of accessing network resources, refer to Chapter 9, *Accessing Network Resources* (page 167).

Getting to Know Linux Software

<div style="text-align: right; font-size: 2em;">**C**</div>

Linux comes with a wealth of applications, often offering more than one solution to specific needs. The difficulty is finding the application that suits your needs best. The next few sections introduce some of the most powerful Linux counterparts of common Windows software. Each section is dedicated to one particular field of application and presents an overview of the Windows applications and Linux equivalents for several tasks. Below each table, find further information about the Linux applications with links to more information. This list is by no means complete, because software development is an evolutionary process and new applications are being created every minute.

TIP: Missing Applications

Not all applications mentioned below are installed on your system by default and some may not be shipped with your product. If the application you want to use is missing, ask your system administrator. If the application is provided by your product, you can install it with YaST. Use the search function of the YaST software management tool to find the package names.

C.1 Office

This section features the most popular and powerful Linux office and business software solutions. These include office suites, databases, accounting software, and project management software.

Table C.1   *Office Software for Windows and Linux*

Task	Windows Application	Linux Application
Office Suite	MS Office, StarOffice, OpenOffice.org	OpenOffice.org, StarOffice, KOffice
Word Processor	MS Word, StarOffice/OpenOffice.org Writer, WordPerfect	OpenOffice.org/StarOffice Writer, KWord
Spreadsheet	MS Excel, StarOffice/OpenOffice.org Calc	OpenOffice.org/StarOffice Calc, Gnumeric, KSpread
Presentation	MS PowerPoint, StarOffice/OpenOffice.org Impress	OpenOffice.org/StarOffice Impress, KPresenter
Data Plotting	MS Excel, MicroCall Origin	OpenOffice.org Calc, Kst, Gnuplot, Grace (Xmgr), LabPlot
Local Database	MS Access, OpenOffice.org Base	OpenOffice.org Base, Rekall, kexi, Mergeant, PostgreSQL
Financial Accounting	MS Money, Quicken, moneyplex	GnuCash, moneyplex, KMyMoney
Project Management	MS Project	Planner, Taskjuggler
Mind Mapping	MindManager, Free Mind	VYM (View Your Mind), Free Mind, KDissert

FreeMind

> FreeMind helps you to visualize your thoughts by creating and editing a mind map. You can easily copy nodes or the style of nodes and paste texts from sources such as HTML, RTF, and mails. The mind maps can be exported into various formats, such as HTML and XML. For more information, refer to http://freemind .sourceforge.net/wiki/index.php/Main_Page.

GnuCash

GnuCash is a software tool to control both your personal and business finances. Keep track of income and expenses and manage your bank accounts and stock portfolios all using one piece of software. Learn more about GnuCash at `http://www.gnucash.org`.

Gnumeric

Gnumeric is a spreadsheet solution for the GNOME desktop environment. Find more information about Gnumeric at `http://www.gnumeric.org`.

Gnuplot

Gnuplot is a very powerful and portable command line–controlled data plotting software. It is also available for MacOS and Windows platforms. Plots created by Gnuplot can be exported to various formats, such as PostScript, PDF, and SVG, allowing you to process these plots easily. Find more information about Gnuplot at `http://www.gnuplot.info/index.html`.

Grace

Grace is a very mature 2D plotting tool for almost all flavors of Unix including Linux. Create and edit plots with a graphical user interface. Grace supports an unlimited number of graphs per plot. Its export formats include JPEG, PNG, SVG, PDF, PS, and EPS. Find more information at `http://plasma-gate.weizmann.ac.il/Grace/`.

Kdissert

Kdissert is an application for structuring ideas and concepts, mostly aimed at students but also helpful for teachers, decision makers, engineers, and businessmen. Ideas are first laid down on a canvas then associated into a tree. You can generate various outputs from the mind map, such as PDF files, text documents (also for OpenOffice.org Writer), and HTML files. Find more information at `http://freehackers.org/~tnagy/kdissert/`.

Kexi

See KOffice (page 292).

KMyMoney

KMyMoney is a personal finance manager for KDE. It enables users of open source operating systems to keep track of their personal finances by providing a broad array of financial features and tools. Learn more about KMyMoney at `http://kmymoney2.sourceforge.net`.

KOffice

KOffice is an integrated office suite for the KDE desktop. It comes with various modules like word processing (KWord), spreadsheets (KSpread), presentations (KPresenter), several image processing applications (Kivio, Karbon14, Krita), a database front-end (Kexi), and many more. Find more information about KOffice at http://www.koffice.org/.

KPresenter

See KOffice (page 292).

Kst

Kst is a KDE application for real-time data viewing and plotting with basic data analysis functionality. Kst contains many powerful built-in features, such as robust plotting of live streaming data, and is expandable with plug-ins and extensions. Find more about Kst at http://kst.kde.org/.

KWord

See KOffice (page 292).

LabPlot

LabPlot is a program for creating and managing two or three-dimensional data plots. Graphs can be produced both from data and functions and one plot might include multiple graphs. It also offers various data analysis methods. Find more information about LabPlot at http://labplot.sourceforge.net/.

Mergeant

Mergeant is a database front-end for the GNOME desktop. Find more information at http://www.gnome-db.org.

moneyplex

moneyplex is a tool to control your finances. All tasks from managing incoming resources and expenses and monitoring your stock portfolio to online transactions via the HBCI standard are handled by moneyplex. Keep track of your financial transactions over time using various analysis options. Because this tool is also available for Windows, users can migrate very easily without having to learn a whole new application interface. Find more information about moneyplex at http://www.matrica.de.

OpenOffice.org

OpenOffice.org is the open source equivalent of MS Office. It is a very powerful office suite including a word processor (Write), a spreadsheet (Calc), a database

manager (Base), a presentation manager (Impress), a drawing program (Draw), and a formula editor for generating mathematical equations and formulas (Math). Users familiar with the MS Office family of applications find a very similar application interface and all the functionality to which they are accustomed. Because OpenOffice.org is capable of importing data from MS Office applications, the transition from one office suite to the other is very smooth. A Windows version of OpenOffice.org even exists, enabling Windows users to switch to an open source alternative while still using Windows. Find more information about OpenOffice.org at http://www.openoffice.org/ and read our OpenOffice.org chapter for a short introduction to the office suite.

Planner

Planner is a project management tool for the GNOME desktop aiming to provide functionality similar to the project management tools used under Windows. Among its various features are Gantt charting abilities and different kinds of views of tasks and resources. Find more information about Planner at http://www.imendio.com/projects/planner/.

PostgreSQL

PostgreSQL is an object-relational database management system that supports an extended subset of the SQL standard, including transactions, foreign keys, subqueries, triggers, and user-defined types and functions. Find more information about PostgreSQL at http://www.postgresql.org/.

Rekall

Rekall is a tool for manipulating databases. Supported databases include MySQL, PostgreSQL, XBase with XBSQL, IBM DB2, and ODBC. Use Rekall to generate different sorts of reports and forms, design database queries, or import and export data to various formats. Find more information about Rekall at http://www.thekompany.com/products/rekall/.

StarOffice

StarOffice is a proprietary version of OpenOffice.org and is distributed by Sun Microsystems. It is available on multiple platforms including Windows and Solaris. It includes certain advanced features not available with the free version (OpenOffice.org). Find more information about StarOffice at http://www.sun.com/software/star/staroffice/.

Taskjuggler

> Taskjuggler is a lean, but very powerful project management software. Take control of your projects using the Gantt charting features or by generating all kinds of reports (in XML, HTML, or CSV format). Those users who are not comfortable with controlling applications from the command line can use a graphical front-end to Taskjuggler. Find more information about Taskjuggler at `http://www.taskjuggler.org`.

VYM (View Your Mind)

> VYM is a software for visualizing your thoughts by creating and manipulating mind maps. Most manipulations do not require more than one mouse click. Branches can be inserted, deleted, and reordered very easily. VYM also offers a set of flags allowing you to mark certain parts of the map (important, time critical, etc.). Links, notes, and images can be added to a mind map as well. VYM mind maps use an XML format, allowing you to export your mind maps to HTML easily. Find more information about VYM at `http://www.insilmaril.de/vym`.

C.2 Network

The following section features various Linux applications for networking purposes. Get to know the most popular Linux browsers and e-mail and chat clients.

Table C.2   *Network Software for Windows and Linux*

Task	Windows Application	Linux Application
Web Browser	Internet Explorer, Firefox, Opera	Konqueror, Firefox, Opera, Epiphany
E-Mail Client/Personal Information Management	MS Outlook, Lotus Notes, Mozilla Thunderbird	Evolution, Kontact, Mozilla Thunderbird
Instant Messaging/IRC Clients	MSN, AIM, Yahoo Messenger, XChat, Gaim	Gaim, Kopete, Konversation, XChat
Conferencing (Video and Audio)	NetMeeting	GnomeMeeting/Ekiga

Task	Windows Application	Linux Application
Voice over IP	X-Lite	Linphone, Skype
FTP Clients	leechftp, wsftp	gftp, kbear

Epiphany

Epiphany is a lean, but powerful Web browser for the GNOME desktop. Many of its features and extensions resemble Firefox. Find more information about Epiphany at `http://www.gnome.org/projects/epiphany/`.

Evolution

Evolution is personal information management software for the GNOME desktop combining mail, calendar, and address book functionality. It offers advanced e-mail filter and search options, provides sync functionality for Palm devices, and allows you to run Evolution as an Exchange or GroupWise client to integrate better into heterogeneous environments. Find more information about Evolution at `http://www.gnome.org/projects/evolution/`.

Firefox

Firefox is the youngest member of the Mozilla browser family. It runs on various platforms, including Linux, MacOS, and Windows. Its main features include built-in customizable searches, pop-up blocking, RSS news feeds, password management, tabbed browsing, and some advanced security and privacy options. Firefox is very flexible, allowing you to customize almost anything you want (searches, toolbars, skins, buttons, etc.). Neat add-ons and extensions can be downloaded from the Firefox Web site (`https://addons.update.mozilla.org/?application=firefox`). Find more information about Firefox at `http://www.mozilla.org/products/firefox/`. You can also read our Firefox chapter.

Gaim

Gaim is a smart instant messenger program supporting multiple protocols, such as AIM and ICQ (Oscar protocol), MSN Messenger, Yahoo!, IRC, Jabber, SILC, and GroupWise Messenger. It is possible to log in to different accounts on different IM networks and chat on different channels simultaneously. Gaim also exists in a Windows version. Find more information about Gaim at `http://gaim.sourceforge.net/about.php`.

gftp

gftp is an FTP client using the GTK toolkit. Its features include simultaneous downloads, resume of interrupted file transfers, file transfer queues, download of entire directories, FTP proxy support, remote directory caching, passive and non-passive file transfers, and drag and drop support. Find more information at http://gftp.seul.org.

GnomeMeeting/Ekiga

GnomeMeeting (recently renamed Ekiga) is the open source equivalent of Microsoft's NetMeeting. It features LDAP and ILS support for address lookup and integrates with Evolution to share the address data stored there. GnomeMeeting/Ekiga supports PC-to-phone calls, allowing you to call another party with just your computer, sound card, and microphone without any additional hardware. Find more information about GnomeMeeting/Ekiga at http://www.ekiga.org.

kbear

KBear is a KDE FTP client with the ability to have concurrent connections to multiple hosts, three separate view modes, support for multiple protocols (like FTP and SFTP), a site manager plug-in, firewall support, logging capabilities, and much more. Find more information at http://sourceforge.net/projects/kbear.

Konqueror

Konqueror is a multitalented application created by the KDE developers. It acts as file manager and document viewer, but is also a very powerful and highly customizable Web browser. It supports the current Web standards, such as CSS(2), Java applets, JavaScript and Netscape plug-ins (Flash and RealVideo), DOM, and SSL. It offers neat helpers like an integrated search bar and supports tabbed browsing. Bookmarks can be imported from various other Web browsers, like Internet Explorer, Mozilla, and Opera. Find more information about Konqueror at http://www.konqueror.org/. You can also read our chapter about Konqueror as a Web browser in *KDE User Guide*.

Kontact

Kontact is the KDE personal information management suite. It includes e-mail, calendar, address book, and Palm sync functionalities. Like Evolution, it can act as an Exchange or GroupWise client. Kontact combines several stand-alone KDE applications (KMail, KAddressbook, KOrganizer, and KPilot) to form an entity providing all the PIM functionality you need. Find more information about Kontact

at `http://www.kontact.org/`. You can also read our Kontact chapter in *KDE User Guide*.

Konversation

Konversation is an easy-to-use IRC client for KDE. Its features include support for SSL connections, strikeout, multichannel joins, away and unaway messages, ignore list functionality, Unicode, autoconnect to a server, optional time stamps in chat windows, and configurable background colors. Find more information about Konversation at `http://konversation.kde.org`.

Kopete

Kopete is a very intuitive and easy-to-use instant messenger tool supporting protocols including IRC, ICQ, AIM, GroupWise Messenger, Yahoo, MSN, Gadu-Gadu, Lotus Sametime, SMS messages, and Jabber. Find more information about Kopete at `http://kopete.kde.org/`.

Linphone

Linphone is a smart and lean Voice over IP client using the SIP protocol to establish calls. Find more information at `http://www.linphone.org`. You can also read our Linphone chapter.

Mozilla Thunderbird

Thunderbird is an e-mail client application that comes as part of the Mozilla suite. It is also available for Microsoft Windows and MacOS, which facilitates the transition from one of these operating systems to Linux. Find more information about Mozilla Thunderbird at `http://www.mozilla.org/products/thunderbird/`.

Opera

Opera is a powerful Web browser with neat add-ons like an optional e-mail client and a chat module. Opera offers pop-up blocking, RSS feeds, built-in and customizable searches, a password manager, and tabbed browsing. The main functionalities are easily reached through their respective panels. Because this tool is also available for Windows, it allows a much easier transition to Linux for those who have been using it under Windows. Find more information about Opera at `http://www.opera.com/`.

Skype

Skype is an application for several platforms (Linux, Windows, Mac Os X) that can be used for phone calls over the Internet with a good sound quality and with

end-to-end encryption. When using Skype, configuring the firewall or router is not necessary. For more information, refer to http://www.skype.com/products/.

XChat
XChat is an IRC client that runs on most Linux and UNIX platforms as well as under Windows and MacOS X. Find more information about XChat at http://www.xchat.org/.

C.3 Multimedia

The following section introduces the most popular multimedia applications for Linux. Get to know media players, sound editing solutions, and video editing tools.

Table C.3 *Multimedia Software for Windows and Linux*

Task	Windows Application	Linux Application
Audio CD Player	CD Player, Winamp, Windows Media Player	KsCD, Grip, Helix Banshee
CD Burner	Nero, Roxio Easy CD Creator	K3b
CD Ripper	WMPlayer	kaudiocreator, Sound Juicer, Helix Banshee
Audio Player	Winamp, Windows Media Player, iTunes	amaroK, XMMS, Rhythmbox, Helix Banshee
Video Player	Winamp, Windows Media Player	Kaffeine, MPlayer, Xine, XMMS, Totem, RealPlayer
Audio Editor	SoundForge, Cooledit, Audacity	Audacity
Sound Mixer	sndvol32	alsamixer, Kmix

Task	Windows Application	Linux Application
Music Notation	Finale, SmartScore, Sibelius	LilyPond, MusE, Noteedit, Rosegarden
Video Creator and Editor	Windows Movie Maker, Adobe Premiere, Media Studio Pro, MainActor	MainActor, Kino
TV Viewer	AVerTV, PowerVCR 3.0, CinePlayer DVR	xawtv (analog), motv (analog), xawtv4, tvtime, kdetv, zapping, Kaffeine

amaroK

The amaroK media player handles various audio formats and plays the streaming audio broadcasts of radio stations on the Internet. The program handles all file types supported by the sound server acting as a back-end—currently aRts or GStreamer. Find more information about amaroK at `http://amarok.kde.org/`.

Audacity

Audacity is a powerful, free sound editing tool. Record, edit, and play any Ogg Vorbis or WAV file. Mix tracks, apply effects to them, and export the results to WAV or Ogg Vorbis. Find more information about Audacity at `http://audacity.sourceforge.net/`.

Helix Banshee

Helix Banshee is a music management and playback application for the GNOME desktop. With Helix Banshee, import CDs, sync your music collection to an iPod, play music directly from an iPod, create playlists with songs from your library, and create audio and MP3 CDs from subsets of your library. For more information, refer to *GNOME User Guide*.

Grip

Grip provides CD player functionalities for the GNOME desktop. It supports CDDB lookups for track and album data. Find more information at `http://www.nostatic.org/grip/`.

Kaffeine

> Kaffeine is a versatile multimedia application supporting a wide range of audio and video formats including Ogg Vorbis, WMV, MOV, and AVI. Import and edit play lists of various types, create screen shots, and save media streams to your local hard disk. Find more information about Kaffeine at `http://kaffeine.sourceforge.net/`.

KAudiocreator

> KAudioCreator is a lean CD ripper application. If configured accordingly, KAudioCreator also generates playlist files for your selection that can be used by players like amaroK, XMMS, or Helix Banshee. Read more about using KAudioCreator in *KDE User Guide* or go to `http://www.icefox.net/programs/?program=KAudioCreator`.

kdetv

> A TV viewer and recorder application for the KDE desktop supporting analog TV. Find more information about kdetv at `http://www.kdetv.org/`.

KsCD

> KsCD is a neat little CD player application for the KDE desktop. Its user interface very much resembles that of a normal hardware CD player, guaranteeing ease of use. KsCD supports CDDB, enabling you to get any track and album information from the Internet or your local file system. Find more information at `http://docs.kde.org/en/3.3/kdemultimedia/kscd/`.

K3b

> K3b is a multitalented media creation tool. Create data, audio, or video CD and DVD projects by dragging and dropping. Find more information about K3b at `http://www.k3b.org/`. You can also refer to our K3b chapter.

LilyPond

> LilyPond is a free music sheet editor. Because the input format is text-based, you can use any text editor to create note sheets. Users do not need to tackle any formatting or notation issues, like spacing, line-breaking, or polyphonic collisions. All these issues are automatically resolved by LilyPond. It supports many special notations like chord names and tablatures. The output can be exported to PNG, TeX, PDF, PostScript, and MIDI. Find more information about LilyPond at `http://lilypond.org/web/`.

MainActor

MainActor is a fully fledged video authoring software. Because there is a Windows version of MainActor, transition from Windows is easy. Find more information about MainActor at `http://www.mainactor.com/`.

MPlayer

MPlayer is a movie player that runs on several systems. Find more information about MPlayer at `http://www.mplayerhq.hu/homepage/design7/info.html`.

MusE

MusE's goal is to be a complete multitrack virtual studio for Linux. Find more information about MusE at `http://www.muse-sequencer.org/index.php`.

Noteedit

Noteedit is a powerful score editor for Linux. Use it to create sheets of notes and to export and import scores to and from many formats, such as MIDI, MusicXML and LilyPond. Find more information about Noteedit at `http://developer.berlios.de/projects/noteedit/`.

Rhythmbox

Rhythmbox is a powerful, multitalented media player for the GNOME desktop. It allows you to organize and browse your music collection using playlists and even supports Internet radio. Find more information about Rhythmbox at `http://www.gnome.org/projects/rhythmbox/`.

Rosegarden

Rosegarden is a free music composition and editing environment. It features an audio and MIDI sequencer and a score editor. Find more information about Rosegarden at `http://rosegardenmusic.com/`.

Sound Juicer

Sound Juicer is a lean CD ripper application for the GNOME desktop. Find more information about Sound Juicer at `http://www.burtonini.com/blog/computers/sound-juicer`.

Totem

Totem is a movie player application for the GNOME desktop. It supports Shoutcast, m3u, asx, SMIL, and ra playlists, lets you use keyboard controls, and plays a wide

range of audio and video formats. Find more information about Totem at `http://www.gnome.org/projects/totem/`.

tvtime
> tvtime is a lean TV viewer application supporting analog TV. Find more information about tvtime, including a comprehensive usage guide, at `http://tvtime.sourceforge.net/`.

xawtv and motv
> xawtv is a TV viewer and recorder application supporting analog TV. motv is basically the same as xawtv, but with a slightly different user interface. Find more information about the xawtv project at `http://linux.bytesex.org/xawtv/`.

xawtv4
> xawtv4 is a successor of the xawtv application. It supports both analog and digital audio and video broadcasts. For more information, refer to `http://linux.bytesex.org/xawtv/`.

Xine
> Xine is a multimedia player that plays CDs, DVDs, and VCDs. It interprets many multimedia formats. For more information, refer to `http://xinehq.de/`.

XMMS
> XMMS is the traditional choice for multimedia playback. It is focused on music playback, offering support for CD playback and Ogg Vorbis files. Users of Winamp should find XMMS comfortable because of its similarity. Find more information about XMMS at `http://www.xmms.org/`.

zapping
> A TV viewer and recorder application for the GNOME desktop supporting analog TV. Find more information about Zapping at `http://zapping.sourceforge.net/cgi-bin/view/Main/WebHome`.

C.4 Graphics

The following section presents some of the Linux software solutions for graphics work. These include simple drawing applications as well as fully-fledged image editing tools and powerful rendering and animation programs.

Table C.4   *Graphics Software for Windows and Linux*

Task	Windows Application	Linux Application
Simple Graphic Editing	MS Paint	KolourPaint
Professional Graphic Editing	Adobe Photoshop, Paint Shop Pro, Corel PhotoPaint, The GIMP	The GIMP, Krita
Creating Vector Graphics	Adobe Illustrator, CorelDraw, OpenOffice.org Draw, Free-hand	OpenOffice.org Draw, Inkscape, Dia
SVG Editing	WebDraw, Freehand, Adobe Illustrator	Inkscape, Dia, Kivio
Creating 3D Graphics	3D Studio MAX, Maya, POV-Ray, Blender	POV-Ray, Blender, KPovmodeler
Managing Digital Photographs	Software provided by the camera manufacturer	Digikam, f-spot
Scanning	Vuescan	Vuescan, The GIMP
Image Viewing	ACDSee	gwenview, gThumb, Eye of Gnome, f-spot

Blender
> Blender is a powerful rendering and animation tool available on many platforms, including Windows, MacOS, and Linux. Find more information about Blender at http://www.blender3d.com/.

Dia
> Dia is a Linux application aiming to be the Linux equivalent of Visio. It supports many types of special diagrams, such as network or UML charts. Export formats include SVG, PNG, and EPS. To support your own custom diagram types, provide the new shapes in a special XML format. Find more information about Dia at http://www.gnome.org/projects/dia/.

Digikam

> Digikam is a smart digital photo management tool for the KDE desktop. Importing and organizing your digital images is a matter of a few clicks. Create albums, add tags to spare you from copying images around different subdirectories, and eventually export your images to your own Web site. Find more information about Digikam at `http://www.digikam.org/`. You can also refer to our Digikam chapter in *KDE User Guide*.

Eye of Gnome (eog)

> Eye of Gnome is an image viewer application for the GNOME desktop. Find more information at `http://www.gnome.org/gnome-office/eog.shtml`.

f-spot

> f-spot is a flexible digital photograph management tool for the GNOME desktop. It lets you create and manage albums and supports various export options like HTML pages or burning of image archives to CD. You can also use it as an image viewer on the command line. Find more information about f-spot at `http://www.gnome.org/projects/f-spot/`. You can also refer to our chapter in *GNOME User Guide*.

gThumb

> gThumb is an image viewer, browser, and organizer for the GNOME desktop. It supports the import of your digital images via gphoto2, allows you to carry out basic transformation and modifications, and lets you tag your images to create albums matching certain categories. Find more information about gThumb at `http://gthumb.sourceforge.net/`.

Gwenview

> Gwenview is a simple image viewer for KDE. It features a folder tree window and a file list window that provides easy navigation of your file hierarchy. Find more information at `http://gwenview.sourceforge.net/home/`.

Inkscape

> Inkscape is a free SVG editor. Users of Adobe Illustrator, Corel Draw, and Visio can find a similar range of features and a familiar user interface in Inkscape. Among its features, find SVG-to-PNG export, layering, transforms, gradients, and grouping of objects. Find more information about Inkscape at `http://www.inkscape.org/`.

Kivio
Kivio is a flow-charting application that integrates into the KOffice suite. Former users of Visio find a familiar look and feel in Kivio. Find more information about Kivio at `http://www.koffice.org/kivio/`.

KolourPaint
KolourPaint is an easy-to-use paint program for the KDE desktop. You can use it for tasks such as painting or drawing diagrams and editing screen shots, photos, and icons. For more information, refer to `http://kolourpaint.sourceforge.net/`.

KPovmodeler
KPovmodeler is a POV-Ray front-end that integrates with the KDE desktop. KPovmodeler saves users from needing a detailed knowledge of POV-Ray scripting by translating the POV-Ray language in an easy-to-understand tree view. Native POV-Ray scripts can be imported to KPovmodeler as well. Find more information at `http://www.kpovmodeler.org`.

Krita
Krita is KOffice's answer to Adobe Photoshop and The GIMP. It can be used for pixel-based image creation and editing. Its features include many of the advanced image editing capabilities you would normally expect with Adobe Photoshop or The GIMP. Find more information at `http://www.koffice.org/krita`.

OpenOffice.org Draw
See OpenOffice.org .

POV-Ray
The Persistence of Vision Raytracer creates three-dimensional, photo-realistic images using a rendering technique called ray tracing. Because there is a Windows version of POV-Ray, it does not take much for Windows users to switch to the Linux version of this application. Find more information about POV-Ray at `http://www.povray.org/`.

The GIMP
The GIMP is the open source alternative to Adobe Photoshop. Its feature list rivals that of Photoshop, so it is well suited for professional image manipulation. There is even a Windows version of GIMP available. Find more information at `http://www.gimp.org/`. You can also refer to our GIMP chapter.

VueScan

> VueScan is a scanning software available for several platforms. You can install it parallel to your vendor's scanner software. It supports the scanner's special hardware, like batch scanning, autofocus, infrared channels for dust and scratch suppression, and multiscan to reduce scanner noise in the dark areas of slides. It features simple and accurate color correction from color negatives. Find out more at http://www.hamrick.com/index.html.

C.5 System and File Management

The following section provides an overview of Linux tools for system and file management. Get to know text and source code editors, backup solutions, and archiving tools.

Table C.5 *System and File Management Software for Windows and Linux*

Task	Windows Application	Linux Application
File Manager	Windows Explorer	Konqueror, Nautilus
Text Editor	NotePad, WordPad, (X)Emacs	kate, GEdit, (X)Emacs, vim
PDF Creator	Adobe Distiller	Scribus
PDF Viewer	Adobe Reader	Adobe Reader, Evince, KPDF, Xpdf
Text Recognition	Recognita, FineReader	GOCR
Command Line Pack Programs	zip, rar, arj, lha, etc.	zip, tar, gzip, bzip2, etc.
GUI Based Pack Programs	WinZip	Ark, File Roller
Hard Disk Partitioner	PowerQuest, Acronis, Partition Commander	YaST, GNU Parted

Task	Windows Application	Linux Application
Backup Software	ntbackup, Veritas	KDar, taper, dump

Adobe Reader
> Adobe Reader for Linux is the exact counterpart of the Windows and Mac versions of this application. The look and feel on Linux are the same as on other platforms. The other parts of the Adobe Acrobat suite have not been ported to Linux. Find more information at http://www.adobe.com/products/acrobat/readermain.html.

Ark
> Ark is a GUI-based pack program for the KDE desktop. It supports common formats, such as zip, tar.gz, tar.bz2, lha, and rar. You can view, select, pack, and unpack single files within an archive. Due to Ark's integration with Konqueror, you can also trigger actions (such as unpacking an archive) from the context menu in the file manager, similar to WinZip.

dump
> The dump package contains both dump and restore. dump examines files in a file system, determines which ones need to be backed up, and copies those files to a specified disk, tape, or other storage medium. The restore command performs the inverse function of dump—it can restore a full backup of a file system. Find more information at http://dump.sourceforge.net/.

Evince
> Evince is a document viewer for PDF and PostScript formats for the GNOME desktop. Find more information at http://www.gnome.org/projects/evince/.

File Roller
> File Roller is a GUI-based pack program for the GNOME desktop. It provides features similar to Ark's. For more information, refer to http://fileroller.sourceforge.net/home.html.

GEdit
> GEdit is the official text editor of the GNOME desktop. It provides features similar to Kate's. Find more information at http://www.gnome.org/projects/gedit/.

GNU Parted

GNU Parted is a command line tool for creating, destroying, resizing, checking, and copying partitions and the file systems on them. If you need to create space for new operating systems, use this tool to reorganize disk usage and copy data between different hard disks. Find more information at `http://www.gnu.org/software/parted/`.

GOCR

GOCR is an OCR (optical character recognition) tool. It converts scanned images of text into text files. Find more information at `http://jocr.sourceforge.net/`.

gzip, tar, bzip2

There are plenty of packaging programs for reducing disk usage. In general, they differ only in their pack algorithm. Linux can also handle the packaging formats used on Windows. `bzip2` is a bit more efficient than `gzip`, but needs more time, depending on the pack algorithm.

kate

Kate is part of the KDE suite. It has the ability to open several files at once either locally or remotely. With syntax highlighting, project file creation, and external scripts execution, it is a perfect tool for a programmer. Find more information at `http://kate.kde.org/`.

KDar

KDar stands for KDE disk archiver and is a hardware-independent backup solution. KDar uses catalogs (unlike tar), so it is possible to extract a single file without reading the whole archive and it is also possible to create incremental backups. KDar can split an archive into multiple slices and trigger the burning of a data CD or DVD for each slice. Find more information about KDar at `http://kdar.sourceforge.net/`.

Konqueror

Konqueror is the default file manager for the KDE desktop, which can also be used as a Web browser, document and image viewer, and CD ripper. Find more information about this multifunctional application at `http://www.konqueror.org/`.

KPDF

KPDF is a PDF viewing application for the KDE desktop. Its features include searching the PDF and full screen reading mode like in Adobe Reader. Find more information at `http://kpdf.kde.org/`.

Nautilus

Nautilus is the default file manager of the GNOME desktop. It can be used to create folders and documents, display and manage your files and folders, run scripts, write data to a CD, and open URI locations. For an introduction to using Nautilus as a file manager, see *GNOME User Guide*. Find information about Nautilus on the Internet at `http://www.gnome.org/projects/nautilus/`.

taper

Taper is a backup and restore program that provides a friendly user interface to allow backup and restoration of files to and from a tape drive. Alternatively, files can be backed up to archive files. Recursively selected directories are supported. Find more information at `http://taper.sourceforge.net/`.

vim

vim (vi improved) is a program similar to the text editor vi. Users may need time to adjust to vim, because it distinguishes between command mode and insert mode. The basic features are the same as in all text editors. vim offers some unique options, like macro recording, file format detection and conversion, and multiple buffers in a screen. Find more information at `http://www.vim.org/`.

(X)Emacs

GNU Emacs and XEmacs are very professional editors. XEmacs is based on GNU Emacs. To quote the GNU Emacs Manual, "Emacs is the extensible, customizable, self-documenting real-time display editor." Both offer nearly the same functionality with minor differences. Used by experienced developers, they are highly extensible through the Emacs Lisp language. They support many languages, like Russian, Greek, Japanese, Chinese, and Korean. Find more information at `http://www.xemacs.org/` and `http://www.gnu.org/software/emacs/emacs.html`.

Xpdf

Xpdf is lean PDF viewing suite for Linux and Unix platforms. It includes a viewer application and some export plug-ins for PostScript or text formats. Find more information at `http://www.foolabs.com/xpdf/`.

C.6 Software Development

This section introduces Linux IDEs, toolkits, development tools, and versioning systems for professional software development.

Table C.6   *Development Software for Windows and Linux*

Task	Windows Application	Linux Application
Integrated Development Environments	Borland C++, Delphi, Visual Studio, .NET	KDevelop, Eric, Eclipse, MonoDevelop, Anjuta
Toolkits	MFC, Qt, GTK+	Qt, GTK+
Compilers	VisualStudio	GCC
Debugging Tools	Visual Studio	GDB, valgrind
GUI Design	Visual Basic, Visual C++	Glade, Qt Designer
Versioning Systems	Clearcase, Perforce, Source-Safe	CVS, Subversion

Anjuta
> Anjuta is an IDE for GNOME/GTK+ application development. It includes an editor with automated formatting, code completion, and highlighting. As well as GTK+, it supports Perl, Pascal, and Java development. A GDB-based debugger is also included. Find more information about Anjuta at `http://anjuta.sourceforge.net`.

CVS
> CVS, the Concurrent Versions System, is one of the most important version control systems for open source. It is a front-end to the Revision Control System (RCS) included in the standard Linux distributions. Find more information at the home page `http://www.cvshome.org/`.

Eclipse
> The Eclipse Platform is designed for building integrated development environments that can be extended with custom plug-ins. The base distribution also contains a

full-featured Java development environment. Find more information at http://www.eclipse.org.

Eric

Eric is an IDE optimized for Python and Python-Qt development. Find more information about Eric at http://www.die-offenbachs.de/detlev/eric3.html.

GCC

GCC is a compiler collection with front-ends for various programming languages. Check out a complete list of features and find extensive documentation at http://gcc.gnu.org.

GDB

GDB is a debugging tool for programs written in various programming languages. Find more information about GDB at http://www.gnu.org/software/gdb/gdb.html.

Glade

Glade is a user interface builder for GTK+ and GNOME development. As well as GTK+ support, it offers support for C, C++, C#, Perl, Python, Java, and others. Find more information about Glade at http://glade.gnome.org/.

GTK+

GTK+ is a multiplatform toolkit for creating graphical user interfaces. It is used for all GNOME applications, The GIMP, and several others. GTK+ has been designed to support a range of languages, not only C/C++. Originally it was written for GIMP, hence the name "GIMP Toolkit." Find more information at http://www.gtk.org. Language bindings for GTK+ are summarized under http://www.gtk.org/bindings.html.

KDevelop

KDevelop allows you to write programs for different languages (C/C++, Python, Perl, etc.). It includes a documentation browser, a source code editor with syntax highlighting, a GUI for the compiler, and much more. Find more information at http://www.kdevelop.org.

MonoDevelop

The Mono Project is an open development initiative that is working to develop an open source Unix version of the .NET development platform. Its objective is to

enable Unix developers to build and deploy cross-platform .NET applications. MonoDevelop complements the Mono development with an IDE. Find more information about MonoDevelop at `http://www.monodevelop.com/`.

Qt

Qt is a program library for developing applications with graphical user interfaces. It allows you to develop professional programs rapidly. The Qt library is available not only for Linux, but for a number of Unix flavors and even for Windows and Macintosh. Thus it is possible to write programs that can be easily ported to those platforms. Find more information at `http://www.trolltech.com`. Language bindings for Qt development are summarized under `http://developer.kde.org/language-bindings/`.

Qt Designer

Qt Designer is a user interface and form builder for Qt and KDE development. It can be run as part of the KDevelop IDE or in stand-alone mode. QtDesigner can be run under Windows and even integrates into the Visual Studio development suite. Find more information about Qt Designer at `http://www.trolltech.com/products/qt/designer.html`.

Subversion

Subversion does the same thing CVS does but has major enhancements, like moving, renaming, and attaching meta information to files and directories. The Subversion home page is `http://subversion.tigris.org/`.

Valgrind

Valgrind is a suite of programs for debugging and profiling x86 applications. Find more information about Valgrind at `http://valgrind.org/info/`.

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