Fifth Edition

The Official ubuntu Book

Benjamin Mako Hill
Matthew Helmke Corey Burger

Foreword by Mark Shuttleworth, founder of ubuntu

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Boston, MA 02116
Fax: (617) 671-3447

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Foreword to the First Edition

IT'S A SMALL CELEBRATION for me to write this foreword—almost exactly two years after the first meeting of a small group of free software professionals that turned into the Ubuntu project. A celebration because two years ago none of us would have predicted that our dream would spawn several million CDs, three or four million enthusiastic users, hundreds of commitments of support from companies large and small, a minor prime time television reference, and now *The Official Ubuntu Book*.

The dream that brought us together can be simply expressed:

> To build a world-class operating system for ordinary desktop computer users, that is genuinely free and freely available, that is immediately useful, and that represents the very best that the free software world can achieve today.

In setting out to build a platform for "ordinary desktop computer users," I had no idea that I would have the privilege of meeting and working with so many *extra*ordinary desktop computer users. Some of those extraordinary individuals are the authors of this book, people who both understand the importance of the free software movement and have the talent to have been real contributors to its success. Others make up the backbone of the Ubuntu community—the small but dedicated army of a few hundred people that works to produce a new release of Ubuntu every six months. They are at the heart of a network that reaches out through the global free software community—through the world of Debian, an extraordinary project in its own right and without which Ubuntu could not exist, and on out to the thousands of projects, large and small, that produce the code and documentation that we pull together and call *Ubuntu*.

While this huge extended community can often appear to be fractured and divided along infinitesimal ideological lines, we are all broadly in agreement about four key ideas, and it is those ideas that are central to the Ubuntu promise:

- That our software should not come with a license fee. That we should be able to share our software, modify it, and then share our modifications, too.
- That this free software should be the best version available, including regular security updates, and not a tease for a better, commercial product.
- That full-scale, high-quality commercial support from local and global companies should be available for this free platform.
- That this software should be usable in as many languages as possible and usable by as many people as possible regardless of disability.

The 17 of us who met in London two years ago come from a very wide variety of countries and backgrounds, but we all agreed that the goal of producing a platform that could live up to that promise was a worthy one, one that we would devote ourselves to wholeheartedly.

For several months we worked quietly. We wanted to come to the world not only with a manifesto but also with a clear demonstration of work done toward our goals, something that people could test and comment on. We had no name (though industry insiders called us the "Super-Secret Debian Startup"), and, as a result, we hosted most of our work at www.no-name-yet.com. We were looking for a name that could express the beauty of the free software community development process—collaboration, interdependence, sharing, standing gently on the shoulders of giants, and reaching for lofty goals. The only word that comes close to that, of which I'm aware, is the African word *ubuntu*. It is found in many forms in many different African languages. And so we adopted it as the name of our project.

We knew that our first release would have blemishes—warts—and gave it the codename "The Warty Warthog." We called ourselves "the warthogs" and coordinated our work on the #warthogs IRC channel. Today, for better or worse, that's turned into a tradition of codenames such as "Breezy

Badger" and "Dapper Drake." As lighthearted as they sound, these codenames come to embody the spirit of our community as it works toward a particular release. This next one—Dapper—is exactly that: a man emerging from youth, professional, bold, confident, and energetic. This is our first release that is designed to meet the needs of large organizations as much as developers and engineers. In the same way, the Ubuntu community has moved from being something of a rebellion against the "Linux establishment" to a strong and professionally organized group.

What Makes Ubuntu So Popular?

First, this is the time for free software to come to the forefront, and Ubuntu is very much the beneficiary of the vast amount of work that has gone into building up a huge body of work in the GNU/Linux world. That work has been underway for nearly 30 years, in one form or another, but Ubuntu is one way in which it is suddenly becoming "visible" to the non-specialist computer user. We are in the middle of a great overturning of the industry status quo. The last time that happened, in the mid-1990s, was when the world suddenly found itself connected to itself—by the Internet. Every major company, especially those in the field of technology, had to examine itself and ask the question, "How do we adapt to an Internet world?" Today, every major technology company has to ask itself the question, "How do we adapt to a free software world?"

I would speculate and say that Ubuntu represents an idea whose time has come. We did not invent the free software movement—that honor goes to Richard Stallman and many others who had a vision far more profound at a time when it was hard to see how it could ever become reality. But Ubuntu has perhaps the honor of bringing that vision to a very wide audience in a form that we can all appreciate. I hope that the real visionaries—those who have led the way—will appreciate the decisions and the choices we make in bringing you this project. Some will take exception—I know Linus prefers KDE to GNOME, for example, so he's likely to be more of a fan of Kubuntu than Ubuntu. But in general, the ideas that others have had, the principles of the free software movement, are well expressed in Ubuntu.

Second, Ubuntu is a project on which you can have a real impact. It has the benefit of deep and reliable financial backing and a corporate team to give

it muscle, but it is in every regard an open project, with participation at the highest levels by true volunteers. We work in a fishbowl—our meetings take place online, in a public forum. That can be tricky. Building an operating system is a fast-paced business full of compromise and tough decisions in the face of little information. There are disagreements and dirty laundry, and mistakes are made. (I should know; some of them are mine. You should hear the one about the Warty Warthog desktop artwork.) The transparency of our environment, however, means that we can count on having robust conversations about our options—all of them, even the ones the core team would never have dreamed up. It also means that mistakes are identified, discussed, and ultimately addressed faster than they would be if we lived and worked behind closed doors. You get a better platform as a result.

We work hard as a community to recognize the contributions of all sorts of individuals—advocates, artists, Web forum moderators, channel operators, community event organizers, writers, translators, people who file and triage bugs . . . whatever your particular interest or talent, we will find a way to integrate your contribution.

Perhaps most important is the way our approach to community differentiates Ubuntu from other free software projects with similar vision. We try to do all of this in a way that recognizes that disagreements are important but prevents those disagreements from creating deep divides in our community. Our code of conduct may not be perfect, but it reminds each of us to remember the meaning of the word *ubuntu*—that each of us has our best impact *through* the relationships we maintain with one another. Finding common ground and maintaining healthy communication are more important for us as a community in the long run than a particular technical decision or the specific choice of words with which to translate "File" into Spanish. Our community governance structures—our Technical Board and Community Council—exist to ensure that debates don't become personal and that decisions can be taken after all sides have been heard.

If you are a software professional or curious about Linux, this book and this platform are an excellent choice. You will learn about the world of Ubuntu and, indirectly, Debian and GNU/Linux. These are great foundations for working with the tools that I believe will come to define the "standard," the everyday computing base upon which we build our homes and offices.

I once heard a proprietary software vendor say, "Linux is more expensive because skilled Linux professionals are more costly." This is true. It means, of course, that Linux skills are more valuable! It won't be true forever because the world of Linux is expanding so rapidly that sooner or later we will have to accept a position in the mainstream, and that takes off some of the "geek points" associated with being part of the "future of technology." But right now, without a doubt, being ahead of the curve on Linux and on Ubuntu is the right place to be. If you're this far into this foreword, you are clearly going to make it. ;-)

It's difficult for me to speculate on what the future might hold for the Ubuntu project. I know that I along with many others are loving the opportunity to be at the center of such an exciting initiative and are committed to seeing where it leads us over the coming years. I believe that it will become a pervasive part of our everyday computing environment, so I would like to help make sure that we don't make too many mistakes along the way! Please, come and join us in the fishbowl to help ensure we do a very, very good job.

—Mark Shuttleworth
Ubuntu Founder
April 2006

Preface

AS WE WRITE THIS, it has been several years since we penned the first edition of *The Official Ubuntu Book*. Over that time, we have seen Ubuntu continue its explosive growth. Updating this book drives this fact home in striking ways. For example, the number of users and posts in the Ubuntu Forums has nearly doubled since the last edition of this book a year ago. Again. The number of officially supported flavors of Ubuntu have been added to. Again. Once again, we feel blessed that *The Official Ubuntu Book* has been able to benefit from, and perhaps in a small way even *contribute* to, that success. Ultimately, that success paved the way for several subsequent editions, and now the fifth edition of the book that you're reading now.

In the process, this book, like Ubuntu, continues to mature. Our job as authors, like that of the Ubuntu developers, now involves more updating and polishing than it used to. Distributed under a free license, a once-risky book on a once-risky operating system is, just a few short years later, as close to a sure thing as an author, publisher, and if we have done our job well, a reader, could hope for.

And yet with success comes responsibility to our readers and to our users with high expectations. Ubuntu's success is built in part of maturity and excellence, and it cannot sacrifice these qualities if it will succeed. We cannot either. Our job as writers is complicated because we need to accurately reflect and represent both while catering to an increasing and increasingly diverse group of users.

As we've noted in the prefaces to previous editions of this book, being *Official* has carried with it a set of rights and responsibilities. Our book's title means that we must attempt to reflect and represent the whole Ubuntu community. While we, as authors, are expected to put ourselves

into the book, it is understood that it can never be to the detriment of the values, principles, technologies, or structures of the Ubuntu community.

Doing this has been complicated as Ubuntu has grown. In each edition, we have added new information, because the Ubuntu community has grown to include new projects. In each revision of this book, we have needed to add to the list of related projects, tools, and community initiatives. As the Ubuntu community grows, it is impossible to give a complete accounting of what Ubuntu has to offer. Creating a summary requires some hard decisions. At the end of the day, we are constrained by page count and our own limited schedules.

Meanwhile, as with earlier editions, we needed to write this book about a new release of Ubuntu while that version was under active development and was being redesigned, rethought, and rebuilt. Every day, Ubuntu grows in different, unpredictable ways, and this growth has increased exponentially with the size of the community and the diversity of the userbase. Our book's development process had to both match and track this process as our content was crafted, rewritten, adjusted, and allowed to mature itself.

As in the previous edition, the contributors to this book go well beyond those listed on the book's cover. Invisible to most readers, dozens of members of the community left their mark on different parts of the text of this book. Although this degree of participation led to a writing process that was as hectic, and at times frustrating, as the process that builds Ubuntu, we hope we can remind readers of the level of quality that this process inspires in our book's subject. In the places where we achieve this, we have earned our book's title. With that goal in mind, we look forward to future versions of Ubuntu and editions of this book wrought through the same community-driven process.

Introduction

WELCOME to *The Official Ubuntu Book, Fifth Edition*!

In recent years, the Ubuntu operating system has taken the open source and IT world by storm. From out of nowhere, the Little Operating System That Could has blossomed into a full-featured desktop and server offering that has won over the hearts of users everywhere. Aside from the strong technical platform and impressive commitment to quality, Ubuntu also enjoys success because of its sprawling community of enthusiastic users who have helped to support, document, and test every millimeter of the Ubuntu landscape.

In your hands you are holding the official, authorized guide to this impressive operating system. Each of the authors selected to work on this book has demonstrated a high level of technical competence, an unbridled commitment to Ubuntu, and the ability to share this knowledge in a simple and clear manner. These authors gathered together to create a book that offers a solid grounding to Ubuntu and explains how the many facets and features of Ubuntu work.

About This Book

At the start of every book, on every bookshelf, in every shop, is a paragraph that sums up the intentions and aims for the book. We have one very simple, down-to-earth aim: to make the Ubuntu experience even more pleasant for users. The Ubuntu developers and community have gone to great lengths to produce an easy-to-use, functional, and flexible operating system for doing, browsing, and creating all kinds of interesting things. This book augments that effort. With such an integrated and flexible operating system, this guide acts as a tour de force for the many things you can do with Ubuntu.

The Scope of the Book

With so much to cover, we had our work cut out to write a book that could cover the system in sufficient detail. However, if we were to write in depth about every possible feature in Ubuntu, you would need to buy a new bookcase to store the sheer amount of content.

Part of the challenge in creating *The Official Ubuntu Book* was selecting the topics and content that can be covered within a reasonably sized book. We have identified the most essential content and written only about it. These chosen topics not only include installation, use of the desktop, applications, multimedia, system administration, and software management, but also include a discussion of the community, online resources, and the philosophy behind Ubuntu and open source software. As a bonus, we decided to squeeze in a chapter full of useful troubleshooting recipes that you can use when you need to troubleshoot problems, and we expanded our discussion of projects related to Ubuntu that will be of interest to you. We believe this book provides an ideal one-stop shop for getting started with Ubuntu.

The Menu

Here is a short introduction to each chapter and what it covers.

- Chapter 1—Introducing Ubuntu: This spirited introduction describes the Ubuntu project, its distribution, its development processes, and some of the history that made it all possible.
- Chapter 2—Installing Ubuntu: We walk through the installation process one step at a time to clearly describe how anyone interested may begin using Ubuntu on their own computer.
- Chapter 3—Using Ubuntu on the Desktop: This is an informative and enjoyable introductory tour of the Ubuntu desktop, the applications included, and ways to configure and customize your desktop.
- Chapter 4—Gaining Greater Proficiency: We explore some of the advanced ways to use Ubuntu, including managing the system. These features are not vital if you want to use the computer only as a simple tool, but once you learn how to install and manage software, use hardware devices and printers, interact with remote computers, use

the terminal, and run some Windows programs under Ubuntu, you will find your overall experience even more rewarding and enjoyable.

- Chapter 5—The Ubuntu Server: This introduction to Ubuntu Server installation and administration includes coverage of command-line package management, basic security topics, and advanced installer features like logical volume management and RAID.
- Chapter 6—More Applications for Ubuntu: Here we discuss some of the most interesting and useful options from among the software packages available for Ubuntu but not installed by default. These quality programs are interesting and useful, but either there is not enough space to include them on the installation CD or they are without as wide of an audience as those programs preinstalled for everyone.
- Chapter 7—The Ubuntu Community: The Ubuntu community is larger and more active than many people realize. We discuss many of its facets, including what people like you do to build, promote, distribute, support, document, translate, and advocate Ubuntu—and we tell you how you can join in the fun.
- Chapter 8—Using Kubuntu: The most popular spin-off project from Ubuntu is Kubuntu. This chapter provides a solid introduction and primer for getting started.
- Chapter 9—Mobile and Netbook Editions: There is an exciting modification of Ubuntu designed for installation and use on netbooks, the small computers created for portability and long battery life that are taking the tech world by storm.
- Chapter 10—Ubuntu-Related Projects: There are a number of Linux distributions based on Ubuntu that you will find interesting and possibly useful. We discuss some of these as well as projects that are integral to the creation of Ubuntu, such as Launchpad and Bazaar.
- Chapter 11—Introducing the Ubuntu Forums: For hundreds of thousands of people, the Ubuntu Forums have provided the first glimpse of and interaction with the greater Ubuntu community. Especially for new users, this has become the most important venue

for support. We explore the forums and the people, history, and processes that have built them.

- Appendix—Welcome to the Command Line: You can begin to take advantage of the power and efficiency of the command line with the clear, easy-to-use examples in our brief introduction.

The Ubuntu team offers several installation options for Ubuntu users, including CDs for desktop, alternate install, and server install. These three CD images are conveniently combined onto one DVD included in the back of this book, allowing you to install Ubuntu for different configurations from just one disk. There is also an option to test the DVD for defects as well as a memory test option to check your computer.

The first boot option on the DVD, Start or Install Ubuntu, will cover most users' needs. For more comprehensive information, check the Help feature by selecting F1 on the boot menu. You can also refer to Chapter 2, which covers the Ubuntu installation process in detail.

You can find the DVD image, the individual CD images (for those who don't have a DVD drive), and Kubuntu and Edubuntu images on www.ubuntu.com/download.

CHAPTER 3

Using Ubuntu on the Desktop

- Taking Your Desktop for a Ride
- Using Your Applications
- The Ubuntu File Chooser and Bookmarks
- Ubuntu in Your Language
- Customizing Ubuntu's Look and Feel
- Managing Your Files
- Ubuntu and Multimedia
- Moving to the Next Ubuntu Release
- Summary

WITH UBUNTU INSTALLED and ready to go, it's time to get started using your new desktop. The stock install of Ubuntu provides a very complete and flexible system. Unlike other operating systems, such as Microsoft Windows or Mac OS X, Ubuntu includes everything you need to get started: an office suite, media tools, a Web browser, an e-mail client, and more. Once the installation is complete, you are up and running right away without having to install any additional software. Different people use their computers in different ways, and every user has her own personal preference for look and feel. Recognizing this desire, Linux has the capability to use any one of a number of different graphical interfaces. This flexibility, combined with the ballooning popularity of Linux and open source, has resulted in literally hundreds of different graphical environments springing up, each covering these different types of users and ways of working.

Even though there is a huge range of different environments available, there are two clear leaders in KDE and GNOME. Each environment provides a good-looking, comprehensive, and easy-to-use desktop, but they differ in how that desktop is used as well as in how further personalization can take place. The KDE system aims for complete control and configurability of the desktop. Any desktop configuration options that exist are available to the user, who has easy access and can change the behavior and look of almost everything. The competing GNOME desktop takes inspiration from both Windows and Mac OS X and sets a priority on simplicity and ease of use. GNOME is also easy to customize, but the less common options are either eliminated or well hidden to prevent user overload. Luckily, Ubuntu users are blessed with the choice of either desktop, along with several others, some of which are mentioned in Chapter 10. The default desktop in Ubuntu is GNOME, and the Kubuntu distribution uses the KDE desktop. Kubuntu is covered in Chapter 8.

In this chapter, we help you get started with GNOME and show how you can use it to do the normal things you face every day with your computer and a few not-so-normal things. This includes opening and running applications, managing your files, adjusting the look and feel, using applications, managing your media, and more. Buckle up and get ready to take your shiny new desktop for a drive!

TIP **The Ubuntu Desktop Is GNOME**
When reading about Ubuntu, you often see the terms *Ubuntu desktop* and *GNOME* used interchangeably. Both of these terms refer to the same thing—the default Ubuntu desktop is a version of GNOME itself. Of course, Ubuntu provides several other desktops, including KDE (in Kubuntu), Xfce (in Xubuntu), and a variety of others.

Taking Your Desktop for a Ride

When you start your Ubuntu system, you are presented with a list of users. Once you select your username from the list by clicking it, you are asked for a password to log in with. In the last chapter, you specified a user account when installing the system, so use that to log in. First type in your username and press Enter, then your password and press Enter.

After a few seconds you will see the Ubuntu desktop appear (Figure 3-1). The desktop has three main areas.

1. At the top of the screen is the panel. This bar contains the desktop menu options and application shortcut icons on the left side as well as the notification area on the right side. You use this bar to load applications and to see the status of certain activities on your system. The panel is always visible when you use your desktop.
2. The large middle part of the screen, located under the panel, is the desktop. This part of the screen is normally covered by the applications that you use, but you can also put icons and shortcuts on the desktop, too.
3. The bottom part of the screen is called the taskbar. This area displays a rectangle for each open application, just like in Windows.

You may have noticed that, unlike other operating systems, there are no icons on the desktop. The reason for this is that desktop icons typically get covered by applications, and, as such, you can't get at them. If you need to start applications, you typically use the Applications menu or the shortcuts.

Figure 3-1 The Ubuntu desktop is simple, uncluttered, and . . . beautiful.

TIP **Device Icons**
Although there are no application icons on the desktop, when you plug in USB devices such as portable music players, keyring drives, or digital cameras, a device icon will appear on the desktop.

Starting Applications and Finding Things

Starting applications is simple. Just click on the Applications menu on the left side of the panel. Inside this menu are a number of submenus for different types of applications. Hover your mouse over each category, and then click the application you want to load. As an example, click on Applications > Games > Mahjongg.

When applications are loaded, the window border has three buttons on the top on the left-hand side:

- **Left button (red button with a black X):** This button closes the application.
- **Middle button (white button with a gray ˇ):** This minimizes the application, taking it off of your screen, and puts it in the taskbar for easy access when you need it again.
- **Right button (white button with a gray ^):** This is used to maximize the window to take up the full desktop area.

Every application that is in use has an entry in the taskbar at the bottom of the screen. You can click these entries to minimize or restore the application to or from the taskbar, and you can right-click to see some other options.

Finding Your Files and Folders

When using your computer, you often need to save and open files and folders, move them around, and perform other tasks. The Places menu contains a bunch of entries, including those listed here, to access different parts of your computer and the network.

- **Home Folder:** Your home folder is used to store the files and work for each user who is logged in. This is the most important folder on the system, and you can think of it as the equivalent of My Documents in Windows—virtually everything you save lives here. Each user has a separate home folder.
- **Desktop:** The Desktop folder is inside your home folder and contains files that visually appear on your desktop as icons. If you drag a file onto your desktop, it will appear in the Desktop folder. Similarly, moving a file out of this folder or deleting it will remove it from your desktop.
- **Computer:** Clicking this item displays the different drives attached to your computer as floppy drives, CD/DVD drives, and USB keys or sticks. This is the equivalent of the My Computer icon in Windows.
- **Network:** This option accesses all networked and shared devices, such as file servers or printers, that are available on your local network. This is the equivalent of the Network Neighborhood or Network Places in various versions of Windows.

- **Connect to Server:** Click this to run a wizard to create a connection to a network server. You can use this to add an icon to the desktop that, when clicked, provides a list of remote files in the desktop file manager. You can then treat this window like any other file manager window and drag files back and forth. This is really useful for copying files to other computers.
- **Search for Files:** Use this to search for files on your computer.
- **Recent Documents:** Click this submenu to display the most recently used documents.

Configuring Your System

The third and final menu, System, is used to configure and customize your system, access help, and report problems. Inside the menu are a few options, including these:

- **Preferences:** This submenu contains items for customizing the look and feel of your desktop. Each of these settings applies only to the desktop of a user who is logged in. If you log in as another user, the settings change to that user's preferences.
- **Administration:** This submenu is used to configure systemwide settings such as networking, users, printing, and more. To use these menu items, your account must have system administrator privileges, and you must know and use your password.
- **Help and Support:** With this you can access the Ubuntu Help Center, which provides documentation and guides for your Ubuntu desktop.
- **About GNOME:** Here you have a simple, animated document with information and links about GNOME.
- **About Ubuntu:** This brings up a detailed document, with links, that helps users learn more about Ubuntu.

TIP **Feel the Power**

When you installed Ubuntu, you were asked for a username and password for the system. That first user account (and its password) has access to not just your normal user account but also the all-powerful Administration features. Therefore, when you access the menu options while using this account and are asked for a password, just enter this user account's password to use those features.

This feature applies only to the user account created during installation. If you add other users, you need to explicitly allow them access to Administration options.

Adding Additional Users

Many computers these days are used by more than one person. Rather than forcing everyone to use the same desktop settings or making the computer less secure by allowing everyone who uses it to have access to administrative functions, it is easy and recommended to create an account for every person who will use the computer. This allows each user to customize how the computer works and looks without interfering with anyone else's preferences, and it grants the administrator privileges that prevent others from accessing functions that may affect everyone or even damage the installation if used incorrectly.

Adding a new user is done by clicking System > Administration > Users and Groups. In the dialog box that appears, there is a list of current users. At the bottom of the list, select Add to create a new user account, as in Figure 3-2.

A password is required to make changes to users and groups, and only those users with administrative access are able to do so. You must now provide a name for the new user as well as a short name that will be used by that user to log in. Click OK, and in the next dialog box, enter a password for that user, confirm the password by entering it a second time, and click OK again. Voila, our new user account is created. You may also have a password

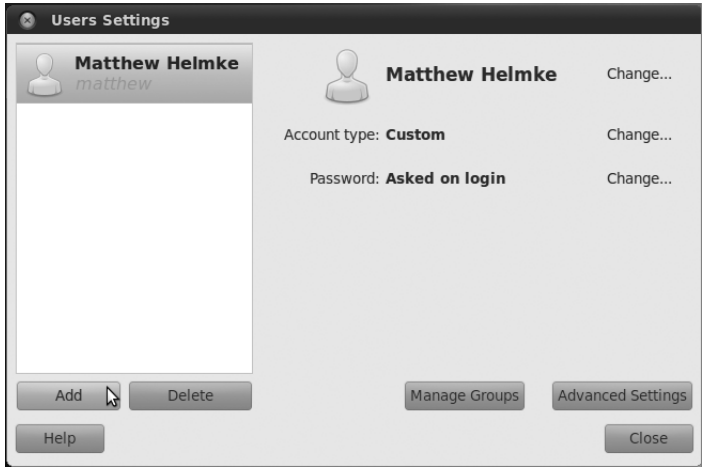

Figure 3-2 The User Settings dialog

generated randomly or allow the user to log in without a password. This last option is not generally a good idea but can be useful. For example, if the users are small children who are not expected to perform administrative tasks, the children could have an account that automatically logs in at boot time, and the administrator would have an additional account, accessed by a password, to perform changes and updates when necessary.

Finally, now that the account is created, we may customize its settings. Highlight the username in the list, and click the Change button at the right next to Account Type for a speedy way to give the user administration privileges. The Advanced Settings button from the lower right corner of the dialog box may be used to set contact information for the user, change the account's user privileges (for example, giving access to administrative and several other functions that are not available through the quick change option), and even change the location of the account's home directory. Be careful when using this power because an account can be damaged or rendered inaccessible if things are not done properly.

Shortcut Icons

On the panel are a number of shortcut icons next to the menus. These small icons are always visible and can be single-clicked to gain immediate access to your favorite applications. Ubuntu comes with several stock shortcuts on the panel, but you are welcome to add your own or remove the defaults as you like.

Adding your own icon is as simple as finding the application you want to add in the menu and then dragging it to the panel. You can then right-click the new shortcut icon and select Move to move it to the desired spot on the panel. You can also do this in the menu by right-clicking on a specific program's entry and choosing the option to have a launcher for the program to be added to the panel. You may have to click to unlock the item from the panel first, which may be done from the same menu.

Applets

One simple yet powerful feature in Ubuntu is the ability to run small programs called *applets* on the panel. These small programs are useful for a variety of tasks and provide quick and easy access via the panel.

To add an applet, right-click the panel and select Add to Panel. The window shown in Figure 3-3 pops up. Select one of the many applets, and click Add. When the applet appears on the panel, you can press the middle mouse button (or the left and right buttons together) to move it around.

The Notification Area

In the right-hand part of the top panel is the notification area and the clock. The notification area is similar to the Windows system tray in that it provides a series of small icons that indicate something specific. A good example of this is Network Manager, which looks after your network connections—both wired and wireless—for you.

You can adjust the notification area items by right-clicking them to view a context menu. Some icons (such as the volume control) allow you to left-click on them to view them. As an example, try clicking the little speaker icon and adjusting the slider.

QUICK TIP Left-click the volume icon and select Sound Preferences to access a large number of sound settings. These settings configure the speakers, microphone, line-in, any other sound card inputs or outputs, and more.

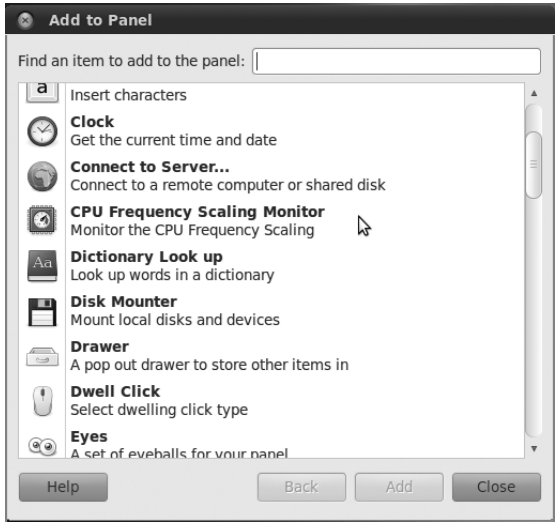

Figure 3-3 Ubuntu comes bundled with a selection of applets.

Three applets are installed by default: the previously mentioned sound applet, the indicator applet, and the network manager applet. The indicator applet tells the user when something needs attention on the desktop and provides quick access to communication options like Empathy, Evolution, and Gwibber with a left-click (more on these later in the chapter). The network manager applet (Figure 3-4) gives easy access to networking controls.

Network Manager

Network Manager is a network interface created to help you manage your network devices and connections and is accessed using the network manager applet. The goal is to make networking "just work" easily and without requiring users to know how to hand-configure the settings (although that is still available for those who want to do so). A left-click of the mouse on the applet shows you the dialog box and enables quick changes between network types. It even provides an easy way to set up access through a virtual private network (VPN), such as many of us are required to use to access files from work or school securely. A right-click lets you enable or disable both wired and wireless networking, enable or disable notifications, see information about your current connection, and edit connections quickly and easily (Figure 3-5).

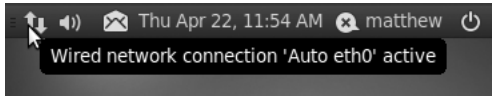

Figure 3-4 The network manager applet, left-clicked to show available wireless networks

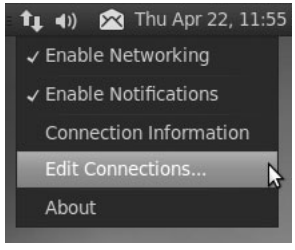

Figure 3-5 The network manager applet, right-clicked to show connections menu

The Clock

Next to the notification area is the clock. Click on the clock to view a calendar. Later, when you use Evolution, items that are added to your calendar appear in the clock applet too. Instead of opening up Evolution to find out when your dentist appointment is, just click on the clock to see it immediately. More information about Evolution is contained later in this chapter.

QUICK TIP Customize your clock by right-clicking it and selecting Preferences.

The Taskbar

The taskbar sits at the bottom of the screen. This small bar is always visible and indicates which applications are currently open. In addition to this, the taskbar also sneaks in a few other handy little features.

To the far left of the taskbar is the Hide/Show Desktop button. Clicking this button hides all of your open applications and shows the desktop. Clicking it again redisplays them. This button is useful when you need to quickly access something on your desktop.

Next to this button is the applications area, which shows each of the currently open applications. For each application, an entry is added, and you can right-click it to view a context menu. This menu can also be used to minimize, maximize, resize, close, and otherwise control applications.

QUICK TIP You can switch between multiple applications in Ubuntu just like in Windows by pressing Alt-Tab. When you press this key combination, a small window appears that can be used to switch between active applications.

To the right of the applications area are two small rectangles called the workspaces. Each of these rectangles represents another screen in which you can view an application. As an example, you may be using your Web browser and e-mail client while talking to your friends in a chat client on the first desktop and working on a document on the second desktop. You can then just click each virtual desktop to switch to it to access your different applications. Another useful tip applies when you're moving applications between

virtual desktops—if you have an application on the first desktop, just right-click the charcoal-colored window or the taskbar entry, select Move to Another Workspace, and pick the relevant workspace number. The menu also has Move to Workspace Left and Move to Workspace Right options. This makes moving applications between your workspaces quite simple.

QUICK TIP Although Ubuntu has only two workspaces configured by default, you can have as many—or few—as you like. To configure them, right-click on one of the workspaces in the bottom right-hand corner of your screen, and select Preferences from the menu.

To the right of the workspaces is the trash. Files dragged onto this icon or right-clicked and "moved to trash" are destined to be deleted. To fully delete these files, right-click the trash and select Empty Trash.

TIP **Usability and the Ubuntu Desktop**

Throughout the development of the Ubuntu desktop, great care and attention have gone into usability. As an example, the four corners of the screen are established as areas that are simple to access—you don't need to carefully mouse over the area and can instead just throw your mouse to the corner. This is why each corner has an important feature. It makes accessing each feature that little bit easier.

Ubuntu is filled with tiny usability improvements such as this that help make it as intuitive and powerful as possible. Canonical has created a collective project called Ayatana to spearhead this development, which has already produced the lovely indicator applet and is working on greater refinements and features. More on Ayatana can be found at https://wiki.ubuntu.com/Ayatana.

Shutting Down Your Computer and Logging Out

Now that you're becoming acquainted with Ubuntu, you'll want to keep using it as long as possible, but there will always come a time when you have no choice but to leave your computer and go do something else. As you have already seen, Ubuntu is extremely flexible, and this area is no exception. Click the icon in the top right of the screen to see the various options (shown in Figure 3-6) for ending your current computing session.

A number of options are available upon logout; however, the choices presented to you will depend on your installation (e.g., Suspend may not be available).

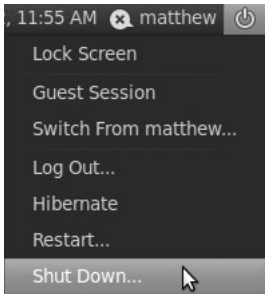

Figure 3-6 Ahh, the possibilities. . . .

- **Lock Screen:** This option locks the screen, which is useful when you need to use the bathroom or grab some lunch. It locks the computer and asks for your password to reenable the desktop.
- **Guest Session:** This option lets you allow someone else to use your computer while keeping you logged in but your data and account secure by giving the guest a limited desktop to work with temporarily and requiring your password to return to your desktop.
- **Switch from . . .:** Your username will be listed here. This option takes you to the login screen and lets you switch between logged in users without logging anyone out. It also requires each specific user's password to access his or her account.
- **Log Out:** This option lets you log out of the current session and go back to the main login screen.
- **Sleep:** If your computer supports it, this option will be included in the list, and you can click it to save the current state of your system in RAM. The next time your computer is turned on, the desktop will be resumed. This option continues to use battery power but only a minimal amount.
- **Restart:** Click this to restart the computer.
- **Shut Down:** Click this to shut down your computer.

Using Your Applications

Now that you have become familiar with the desktop, let's explore some of the many applications included on your new system. By default, Ubuntu comes with a wide range of popular and established applications to listen to music, watch videos, create documents, browse the Web, manage your appointments, read your e-mail, create images, and much more. These applications have been vetted by the developers to ensure they are the best-of-breed Linux applications available.

Although Ubuntu includes a range of software applications, it is likely you will want to install extra applications and explore other available software. Fortunately, the Ubuntu system is built on a powerful foundation that makes software installation as simple as pointing and clicking in the Ubuntu Software Center, covered in depth in Chapter 4. Just browse through the different categories and check the applications to install. Click the Apply button, and the application is downloaded and installed for you.

This tool provides a simple way to access a limited core set of popular applications, but there are actually more than 30,000 packages available to your Ubuntu system. Software installation is discussed in detail in Chapter 4.

TIP **Another Way to Run Applications**
Although you will most typically start your applications by selecting them from the Applications menu, you can also press Alt+F2 (on Mac hardware, use Fn+Alt+F2) to bring up a box where you can type in the name of an application and run it.

Browsing the Web with Firefox

Firefox is the default Ubuntu Web browser and provides you with a simple, safe, and powerful browsing experience. Firefox is developed by Mozilla and has become one of the most successful open source projects in the world and continues to garner huge popularity. With hundreds of millions of downloads and rapidly increasing browser share, Firefox has been an unparalleled success.

QUICK TIP You can learn more about Mozilla and Firefox, as well as their other software products, at www.mozilla.org.

Fire up Firefox by clicking its icon (the first one next to the System menu) on the panel or by selecting Applications > Internet > Firefox Web Browser. Before long, you'll be presented with the main Firefox window (Figure 3-7).

The Firefox window looks similar to most Web browsers and includes the usual back, forward, reload, and stop buttons, an address bar, and some menus. These familiar-looking elements help you become acquainted with Firefox, and if you have used Internet Explorer, Opera, Chrome, or Safari before, you are sure to pick it up in no time.

Navigating your way around the Internet is no different in Firefox than in any other browser—just type the Web address into the address bar and press Enter. Firefox also has a few nice features that make it easy to access your favorite sites. As an example, if you want to visit the Ubuntu Web site, you can just enter www.ubuntu.com (leaving off all that http:// nonsense). Alternatively, you can just type in "Ubuntu," and Firefox will do the equivalent of going off to Google, entering "Ubuntu" as the search term, and taking you to the first result for the search. This feature is incredibly handy for popular sites that are likely to be at the top of the search results page.

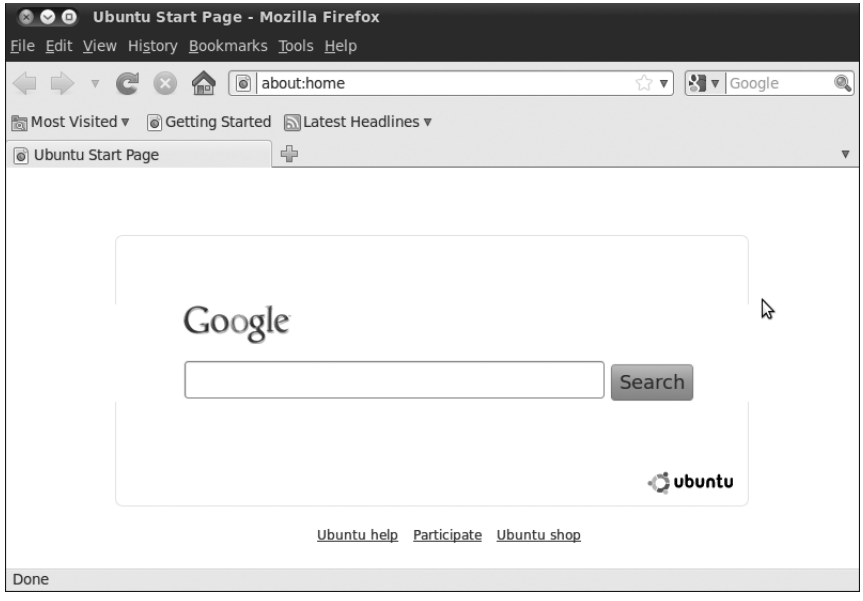

Figure 3-7 The Firefox interface is sleek but extensible.

TIP The search box next to the address bar can be used to do searches. By default, these searches are on Google. To do a Google search, just type in your search term and press Enter. You can also click the down arrow next to the Google logo and select from a variety of other sites to search, including sites like Amazon.com and Wikipedia.

This search box can be used to search just about anything. To add more search engines, click the small icon and then select Manage Search Engines.

Bookmarking Your Favorite Sites To bookmark the page you are viewing, click Bookmarks > Bookmark This Page or click Ctrl+D. In the dialog box that pops up, use the combo box to select the folder to store the bookmark in. You also have the option to add "tags" to your bookmark, which are like keywords that can be used to sort and search for your bookmarks in the future. When you have finished naming and tagging your bookmark, click Done to save the bookmark.

Save Time with Live Bookmarks Firefox also includes a special feature called *live bookmarks* that automatically grabs content from a Web site without your needing to visit it. As an example, go to http://fridge.ubuntu.com (a popular Ubuntu news site), and you will see a small orange icon—which indicates that this site has a feed available—on the right side of the address bar. Click this orange square, and you will be taken to a new page that previews the feed and gives you the option of what you would like to use to subscribe to it. Use the default option (Live Bookmarks), and click Subscribe Now. A dialog box will pop up. Use the default values provided and click OK. A new toolbar button is added, and when you click on it, a list of the items from the Web site are displayed. Each time you start Firefox, it will quietly go away and update this list so that you don't need to visit the site yourself. The "Latest Headlines" toolbar entry is an example of this.

TIP **If You Liked the Fridge**
You may also like Planet Ubuntu at http://planet.ubuntu.com. This site collects the personal blogs of a number of different Ubuntu developers and other community members. Planet Ubuntu gives a unique insight into what the developers are working on and/or interested in.

Bolt It On, Make It Cool Although Firefox is already a powerful and flexible Web browser, it can be extended even further using special plug-in exten-

sions. These extensions cover not only typical browsing needs but also other more specialized extras that extend the browser itself.

To install normal Web plug-ins, just visit a site that requires the plug-in. A yellow bar will appear at the top of the page, indicating that you are missing a plug-in necessary to fully take advantage of the page you are visiting. Click the Install Missing Plug-ins button to grab the required plug-in. For example, Ubuntu does not come with the Macromedia Flash plug-in because it does not live up to Ubuntu software freedom requirements. As a result, you will have the option to install either Macromedia Flash or the free software version Gnash if you want to use Flash.

To extend the browser itself with additional features, go to https://addons.mozilla.org and browse for an extension that you are interested in. When you find something you would like to install, click the Install link. A dialog box will pop up asking you to confirm the installation. Click Install Now. Your new extension will now download and install automatically. Typically, this requires a restart of Firefox, and then your extension is available.

TIP **Be Careful Where You Download**
It is recommended that you download extensions only from http://addons.mozilla.org. If you do need to install an extension from another site, make sure it is a site you trust. Otherwise, the extension may contain unsafe software, viruses, or spyware.

Creating Documents with OpenOffice.org

Included with Ubuntu is a full office suite called OpenOffice.org. This office software comes by default with applications for word processing, working with spreadsheets, and presentations. Adding other features, such as the ability to create and manipulate databases, work with drawings, and more, are easily installed later. The suite provides an extensive range of functionality, including reading and writing Microsoft Office file formats, and can also export documents as Web pages, PDF files, and even animations.

Let's give OpenOffice.org a whirl by creating a letter with it. Start OpenOffice.org word processor by selecting it from the Applications > Office

menu. When it has loaded, you will be presented with the interface shown in Figure 3-8.

If you have used a word processing program before, many of the common interface elements, such as the buttons for setting font type and size, bold, italic, underline, and alignment, look and behave the same. The OpenOffice.org developers have designed the suite to be easy to migrate to if you have used a program like Microsoft Office before. After a few minutes playing with OpenOffice.org, you will be confident that you can find the functions you need.

Start your letter by first choosing a nice font. In the font combo box, you should see Liberation Serif (which is a free-as-in-liberty font similar to Times) selected as the default. You can click the box and choose another if you prefer, such as the lovely DejaVu Sans font. Change the font size by clicking the combo box to the right of the font box and selecting 10 as the

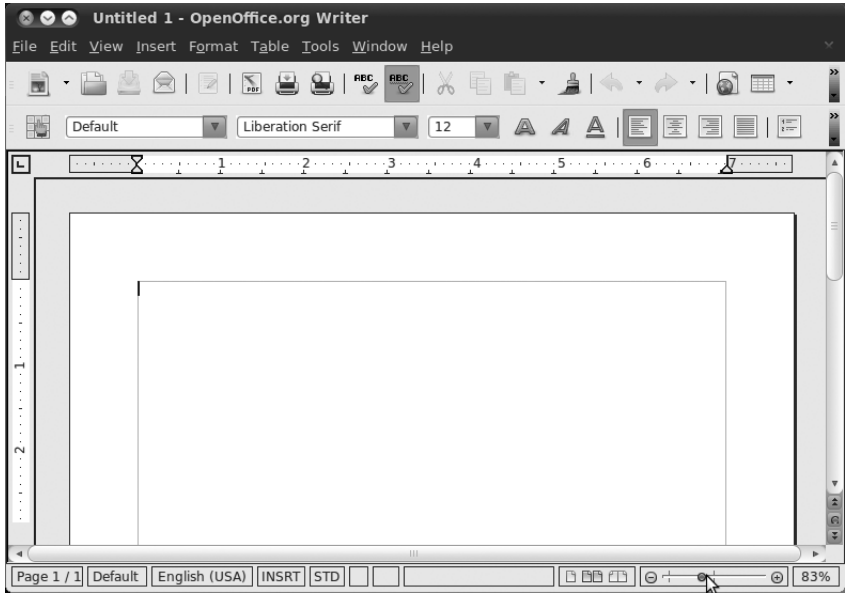

Figure 3-8 OpenOffice.org looks similar to Microsoft Office and is therefore quite simple to adjust to.

size. With the cursor on the left side of the page, add your home address to the letter.

Now press Enter to leave a blank line under the address, and click the Align Right toolbar button (the icon looks like some lines aligned to the right). If you are unsure of what a button does, hover your mouse over it to pop up a tool tip. Now add to your letter the address of the recipient.

Press Enter again to leave a blank line, and type the main body of the letter. Feel free to use the bold, italic, and underline buttons to add emphasis to your words. You can also use other toolbar buttons to add items such as bullet points and numbered lists and to change the color of the font. If you want to add features such as graphics, tables, special characters, and frames, click the Insert menu and select the relevant item. You can customize each item added to the page by right-clicking the item and using the options shown in the context menu.

When your letter is complete, you can save it by selecting File > Save, by clicking the floppy disk toolbar icon, or by pressing Ctrl-S. The default file format used by OpenOffice.org is the OpenDocument Format. This file format is an official open standard and is used across the world. The file format is slightly different for different types of applications (.odt for word processor files, .ods for spreadsheets, and so on), but each format provides an open standard free from vendor lock-in. You can also save in a variety of other formats, including the default formats for Microsoft Office.

TIP **Vendor Lock-In?**

In the proprietary software world, it is common for each application to have its own closed file format that only the vendor knows how to implement. When a person uses the software to create documents, the closed format means that only that specific tool can read and write the format. As long as you want to access your documents, you need that tool. This is known as vendor lock-in.

To combat this problem, the OpenOffice.org suite (and the vast majority of other open source applications) uses an open file format that is publicly documented. In fact, the format is a published standard under ISO/IEC 26300:3006. This means that other applications can implement the OpenDocument file format, and you can be safe in the knowledge that your documents will always be available and you are not locked in to any specific tool.

Another useful feature wedged into OpenOffice.org is the capability to save your documents in the Adobe PDF format. PDF files have been increasingly used in the last few years and are useful for sending people documents that they should not change (such as invoices). PDF files provide a high-quality copy of the document and are well supported across all operating systems. This makes PDFs ideal for creating catalogs, leaflets, and flyers. To save a document as a PDF file, click the PDF button on the main toolbar (next to the printer icon). Click the button, enter a filename, and you are done. Simple.

Connecting with Empathy and Gwibber and the Indicator Applet

Empathy is a chat program that can interact with Google Talk, AIM, Windows Live, and many other chat programs. It has audio and video capability as well. You can get started by left-clicking the indicator applet (it looks like an envelope) on the top panel and choosing Chat. You will then be given an opportunity to enter your account information for various services and to begin communicating.

Gwibber, listed in this menu as Broadcast, is accessible from the same location and can be set up to allow you to integrate online services like Flickr, Twitter, identi.ca, and Facebook into your desktop for even easier access to what is happening in your social networks. Open it, enter your account information as directed, and you can begin to interact with all your circles from one location on your desktop.

On the top panel, you may have noticed your username with a speech balloon icon next to it. This location gives you a convenient place to mark yourself available for chat or away, update your information for social accounts that use either Empathy or Gwibber, and use your Ubuntu One services.

Ubuntu One

Ubuntu One is an online cloud storage application that is free for any Ubuntu user. This enables any user to create an Ubuntu One account and store up to 2GB on remote servers (more space is available for a fee) that

may be accessed from anywhere. The service is built in to the Ubuntu desktop and, once activated, integrates smoothly. You can get started configuring your account from the menu at System > Preferences > Ubuntu One. More information is available at one.ubuntu.com.

Managing Your E-mail and Calendars with Evolution

Evolution is modeled around the all-in-one personal information management tool. Within Evolution you can read your e-mail, manage your schedule, store contact details, organize to-do lists, and more in a single place. This makes Evolution useful for both businesspeople and regular users who want easy access to this information.

Setting Up Your E-Mail Account To use Evolution to read your e-mail, you need to find out the following settings for connecting to your e-mail server (you can get these details from your ISP or system administrator):

- Your type of e-mail server (such as POP or IMAP)
- Your mail server name (such as mail.chin.com)
- Your mail account's username and password
- Authentication type (typically by password)
- Your outgoing mail server type (typically SMTP)
- Your outgoing mail server name

To use Evolution for just the calendar function, you need to go to the indicator applet (looks like an envelope) in the notification area on the top panel and click on Set Up Mail. In a few seconds, the Evolution Setup Assistant window will pop up. Here are the necessary steps:

1. On the Welcome screen, click the Forward button.
2. Next, you may restore your e-mail from a backup, but since we are doing a fresh setup, click the Forward button.
3. On the Identify screen, enter your full name and e-mail address in the appropriate boxes. Under Optional Information, you should uncheck the Make this my default account box. Then click the Forward button.

4. In the Receiving Email dialog box under Configuration > Server, just add your name. You can add your name under Username as well. Then click the Forward button.
5. On the Receiving Options screen, click the Forward button.
6. On the Sending Email and Server Configuration screen, add your name here as you did in earlier steps.
7. In the Account Management dialog box, just click the Forward button.
8. On the Done screen, click the Forward button.
9. Finally, once Evolution opens, click New Icon (looks like a clock), and from the drop-down menu, select Calendar.
10. When the New Calendar window pops up, you can pick which type of calendar you want to use. Note: If you don't already have another type of calendar, just leave the Type as CalDAV, then fill in the name—this will be the name of your calendar. Pick the color you want your events to show up as, then click Mark as default calendar.

If you are using Google calendar, you can also add this function to your calendar. All the steps are the same, but when you get to step 10 to add a new calendar, you need to choose Google as the type of calendar. Then fill in the name you want to use for the calendar, choose the color, and mark it as your default calendar. You probably want to copy the contents locally, too, in case you need to access it when you do not have Internet access. When you click Google, you will see a Username field show up under Name. Your username should be your gmail name, but without the "@gmail.com." Once you enter your username, click on Retrieve List. You will be prompted to enter your gmail password. Enter it. When the Enter Password window goes away, you should see a list of calendars that you have linked to your Google calendars. If you have more than one Google calendar you want to add, then just pick which one will be your default calendar. Repeat step 10 for each calendar you want to add.

TIP **Evolution and Webmail**
You can't use Evolution to read Webmail such as Yahoo! Mail or Hotmail unless you configure your Webmail to allow POP access and to use SMTP to send e-mail. Consult your Webmail provider for more details on if and how you can access the mail with a local client like Evolution.

Load Evolution by clicking the envelope and clock shortcut icon from the panel (hover your mouse over the shortcuts to see what they are) or by clicking Applications > Internet > Evolution Mail. When the application loads, you are taken through a wizard to set up your e-mail server (as shown in Figure 3-9).

Click Forward to continue the setup, and after choosing to not restore from a backup, you will be asked for your identity. Fill in your e-mail address in the E-Mail Address box, and add the optional information if you want to. The additional details are not essential for using Evolution. Click Forward to continue.

You are next asked to choose what kind of e-mail server you have from the drop-down box. When you make your selection, some additional settings are displayed. Fill in the server name and the username. You may need to adjust the Security and Authentication Type settings, but for most accounts the default settings should be fine. Click Forward to continue.

Figure 3-9 Setting up Evolution is simple as long as you know the details for your mail server.

The next page configures some options for receiving your e-mail. None of these options are essential, although you may want to check the first box to automatically check for new mail. Click Forward to continue. The next screen configures the settings for sending e-mail. In the combo box select the Server Type (typically SMTP) and add the server name to the Server box. Click Forward to continue.

In the next screen, enter a name to describe the account. The default entry (your e-mail address) is fine, but you may want to add something more meaningful such as "Work E-Mail" or "Home E-Mail." When you have added this, click Forward to continue. Finally, select your location from the map. If you click on your area of the world, the map will zoom in. Once you have done this, click Apply to complete the process and close the wizard.

With the wizard completed, the main Evolution interface will appear, as shown in Figure 3-10.

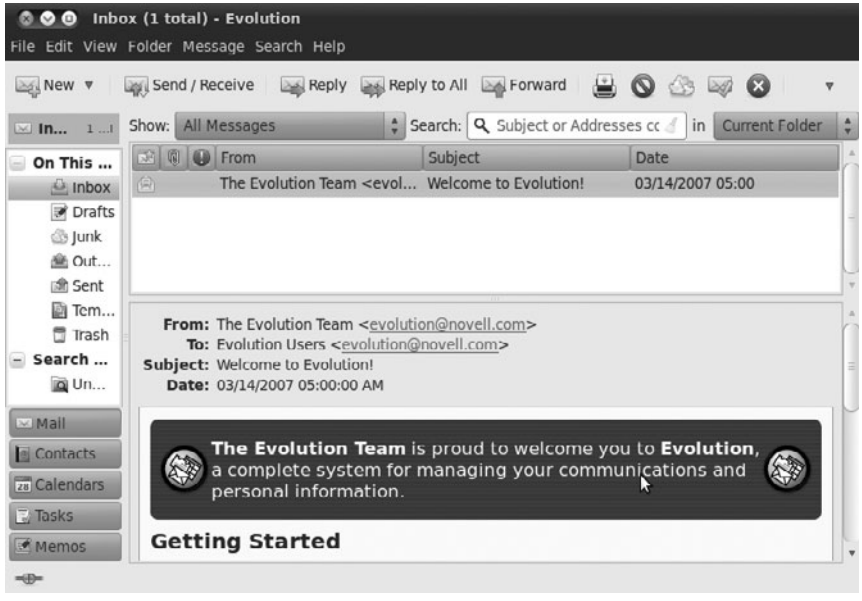

Figure 3-10 Those of you who have used Microsoft Outlook should find the interface very similar.

On the left sidebar you can see a number of buttons to access the mail, contacts, calendars, memos, and tasks components in Evolution. When you click each button, the interface adjusts to show you the relevant information about that component.

Working with Your E-Mail Inside the e-mail component you can see the e-mail folders in the left panel and the list of messages in the top pane. When you click on a message, it is displayed in the bottom pane, where you can read it. With your new account set up, you will first want to go and grab the e-mail from your mail server. Click Send/Receive, and the mail is retrieved from your server and any unsent mail is sent.

TIP **Problems?**
If you cannot connect to your mail server, there may be an error in your account configuration. To edit your account settings again, click Edit > Preferences, select the account from the list, and click Edit.

With your messages loaded, new e-mails are shown in bold in the top pane. Move through the different e-mails using the up and down arrow keys, and each message will be displayed. You can reply to a message by clicking the Reply or Reply To All toolbar buttons. New e-mails can be created by clicking the New toolbar button. By default, new e-mails and replies are sent automatically when you click the Send button in the compose window. This way you don't need to click the Send/Receive button to deliver them.

Managing Your Calendar Inside calendar mode, Evolution provides another convenient way to manage your schedule, add new events, and view your calendar in different ways. When you click the Calendars button to switch to this mode, you can see the timetable for today as well as the month view. The month view shows a couple of months in which the bold dates have events.

You can add two types of events to your calendar.

- **Meetings:** These are events with a specific group of people.
- **Appointments:** These are general events.

To add a new appointment, navigate to the date you require using the calendar, then right-click a time slot in the day view, and select New Appointment. Alternatively, simply click the New toolbar item. In the box that pops up, fill in the Summary, Location, Time (adjusting the date if necessary), and Description boxes. You can also select which calendar the event appears on if you have multiple calendars configured.

TIP **Multiple Calendars**
Evolution supports multiple calendars. This is useful if you want different calendars for different types of events such as personal and work-related activities. To create a new calendar, right-click the calendar list in the left sidebar and select New Calendar.

To add a new meeting, again find the date, right-click the day view, and select New Meeting. Inside the dialog box that pops up, you need to add the participants who are attending the meeting. You can add participants in two ways: Use the Add button if they are not in your address book, or use the Attendees button if they are in your address book.

When you click Attendees, a new dialog pops up with a list of attendees down the left. You can use the Add and Remove buttons to add contacts to (or remove them from) the different categories of Chairpersons, Required Participants, Optional Participants, and Resources. Now, you probably don't have any contacts in there, as you are just starting to use Evolution, so use the main Contacts button on the left side of the main Evolution window to add some.

You can view your calendar in lots of different ways by clicking the different toolbar buttons such as Week, Month, and List. Play with them and see which ones are most useful to you.

QUICK TIP Remember, you can access your appointments without opening Evolution by clicking on the clock in the panel.

The Ubuntu File Chooser and Bookmarks

One area in which the GNOME developers have worked hard is in creating an intuitive and useful file chooser that is accessed in applications

with File > Open. The window that pops open is called the file chooser. You may be wondering why they have spent so much time on such a small and seemingly insignificant part of the desktop. In reality, however, finding files is one of the most frustrating aspects of using computers and often involves digging through folder after folder to find what you need. Luckily, the GNOME file chooser (Figure 3-11) helps cut down much of this file hunting significantly.

The listing of files on the right-hand side is used to find the file you need, and you can click on folders in this listing to traverse deeper into your subfolders. Note how each folder is displayed above the listing in a series of buttons. You can click these buttons to easily jump back to parent folders when needed.

Aside from enabling you to manually pick files, the chooser also supports bookmarks. On the left side of the chooser is a list of devices and bookmarks labeled Places. These include your home directory (shown as your username), Desktop (the files on your desktop), and File System (the entire hard drive), as well as devices such as CD drives, floppy drives, and USB sticks.

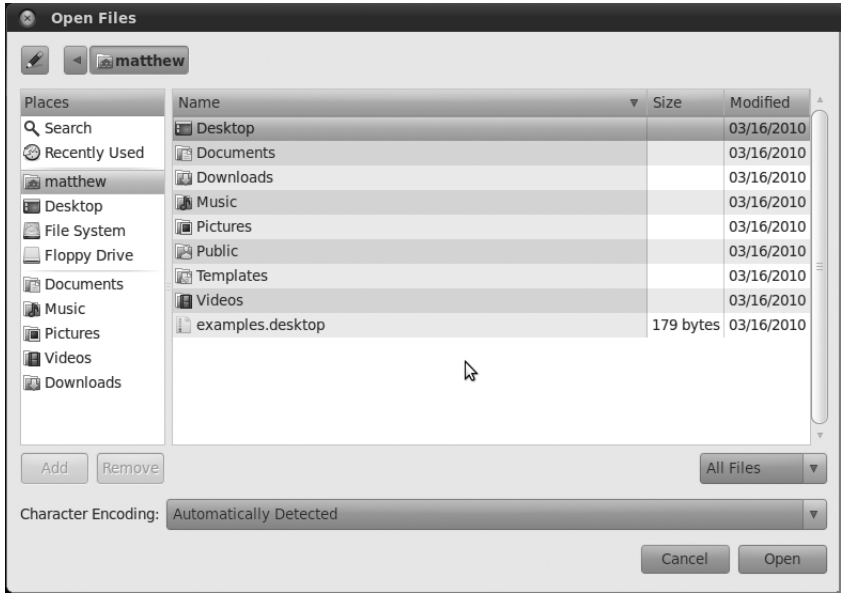

Figure 3-11 The file chooser makes it easy to find what you want.

To create your own bookmark, use the listing on the right to find the folder that you want to bookmark, single-click it, and then click Add below the Places box. You could also right-click on the file and choose Add to Bookmarks. The folder now appears in your bookmarks. Now whenever you need to access that folder, just click the bookmark! In addition to putting the bookmark in the file chooser, it is also available in other parts of the desktop, such as the Places menu and in the file manager.

Ubuntu in Your Language

When you installed Ubuntu, you were asked which language the system should use. Although this sets the initial language for the system, you may want to change the language at a later date. To do this, click System > Administration > Language Support.

Ubuntu supports a huge range of different languages, and many applications include a Translate This Application menu option in the Help menu so that all Ubuntu users can contribute translations in their language(s). If you would like to help with this effort, it is a fantastic contribution to the Ubuntu project.

When the language selector first loads, it may ask you to update your language packs. Just click Yes to continue. Inside the dialog box a number of languages are listed, each of which has a Support checkbox listed next to it. For each language that you want available on the system, check the relevant boxes.

When you have selected the boxes, click the Apply button, and the appropriate language packs are downloaded and installed. Now use the Default Language combo box to choose the new language. You need to log out and log back in for the changes to take effect.

TIP **Choosing a New Language**
When you see the login screen, you can use the Language button to choose a language for that specific login session. When you select the language, you are asked if you want to make it the default language or use it just for that specific session.

Customizing Ubuntu's Look and Feel

Whenever we put someone in front of Ubuntu for the first time, there seems to be a uniform natural desire to tweak the look and feel of the desktop. It can be fun tweaking our desktops so they look just right, and Ubuntu has great support for all kinds of adjustments. Do you want different-looking applications with a lime green background and crazy fonts? No problem; just don't show it to anyone else. . . .

Changing the Background

To change the background of your desktop, right-click it and select Change Desktop Background. Inside the dialog box that appears, choose your wallpaper by clicking on an image, and the desktop background will automatically change. Ubuntu comes with a limited range of preinstalled wallpapers, so it is likely that you will want to add your own wallpaper. To do this, save your wallpaper somewhere on your computer, and then use the Add Wallpaper button to select it. The new wallpaper can be selected from the list.

If you are not really a wallpaper kind of person and would prefer just a color for the background, you can use the Desktop Colors controls at the bottom of the dialog box. The combo box provides three different types of background: Solid Color, Horizontal Gradient, and Vertical Gradient. Next to the combo box, click on the color chip to select the relevant color(s).

Changing the Theme

When you are using your applications, the visual appearance of the buttons, scroll bars, widgets, and other bits and pieces are controlled by the theme. The built-in theming system can make your applications look radically different, and Ubuntu ships with a number of themes that you can try.

Choosing a New Theme To choose a new theme, click System > Preferences > Appearance and then click on the Theme tab. Inside the tab that pops up are a number of themes that you can choose. Just click on a theme, and the desktop will be adjusted automatically. You can further customize your theme by clicking the Customize button. A new dialog box

appears that has tabs for the different parts of the theme you can configure. Click each tab, and select an entry from the list to create your own perfect theme.

Installing New Themes To install a new theme, head over to http://art.gnome.org and find a theme that you like. You can do this directly from the Theme tab in the System > Preferences > Appearance window mentioned previously by clicking Get more themes online. You need to look for Controls and Borders when browsing under the Themes tab on the site. When you find a theme that you like, download it to your computer. Now Click System > Preferences > Appearance, and click the Install button in the Theme tab. Using the file chooser, find the theme that you just downloaded, and it will install automatically. You may now select your new theme from the list.

Configuring a Screensaver

To choose a different screensaver, click System > Preferences > Screensaver. The screensaver configuration tool then loads (Figure 3-12).

Figure 3-12 A number of screensavers are bundled with Ubuntu.

On the left side of the window is a list of available screensavers. Click on a screensaver and you will see a preview appear in the space to the right of the list. You can then use the slider to select how long the computer needs to be idle before the screensaver kicks in.

The Lock Screen When Screensaver Is Active checkbox can be selected to lock the screen when the screensaver starts and, as such, requires a user to enter the password to reactivate the desktop. This is useful if you work in an office and want to ensure that no one tampers with your computer when you are away.

Managing Your Files

Files are the primary components of any computer use, and they need to be managed, copied, moved, renamed, grouped, and loaded. Included with Ubuntu is a powerful yet simple file manager called Nautilus that integrates tightly into your desktop. You'll use it all the time even if you don't often see that name. Most often, you will see it referred to as File Browser.

File Browser makes extensive use of drag and drop. Unlike the kind of file manager used in Windows with its tree view and listing of files, File Browser displays files in a series of windows in which you can drag files around easily. For those who just can't say goodbye to the tree view, File Browser also supports that. Aside from providing a simpler user interface, File Browser also includes a number of useful features such as video and image previews, emblems, bookmarks, permissions management, and more.

You can start File Browser from a number of different places, but the easiest way to launch it is from the Places menu. Click on Places > Home Folder to load your home folder. When the folder loads, you should see something similar to what Figure 3-13 shows.

The File Browser window is split into two parts. The sidebar shows categories of information such as bookmarks, folders, emblems (more on these later), and more. In the main part of the window, you can see the subfolders and files in the current folder. By default, File Browser displays your bookmarks in the left sidebar and displays the contents of your home folder.

Figure 3-13 Accessing your home folder files is as simple as clicking Places > Home Folder.

So, let's play with File Browser and see what you can do with it. The first important skills to learn involve general file management. Many of the tasks you need to do can be achieved by right-clicking your file/folder and selecting the relevant option. There are also a number of options in the Edit menu.

First, create a folder by right-clicking the main part of the window and selecting Create Folder. A folder is added, and you can type in the name of it. If you change your mind about the name, rename it by right-clicking and selecting Rename. If you double-click on a folder, you can access it and perform the same operations within that folder.

QUICK TIP Just as folders and directories are the same thing, so are folders and subfolders . . . well, almost. When we refer to subfolders, we are referring to folders contained within another folder. For example, /home is a folder, while we can refer to /home/mako as a subfolder of /home.

File Browser is also flexible in how your files are displayed. You can view the files and folders as either the default collection of icons or as a list. To switch to the list view, select View > View As List. You can also configure the organization of how your files and folders are displayed by right-clicking the main part of the window and selecting one of the options in the Arrange Items menu. Play with each of these options to see which ones work best for you.

QUICK TIP Just like in the file dialog, File Browser displays each of the different parts of the path as different buttons. As an example, /home/mako/work would have three buttons: home, mako, and work.

Selecting, Copying, and Moving Files and Folders

Copying and moving files and folders are simple tasks with File Browser and can be done in a number of different ways. To test this, create two folders called Work and Invoices in your home directory. Save some files inside each folder. You can quickly create empty files by double-clicking the folder to go into it, right-clicking, selecting Create Document > Empty File, and renaming the file to something useful. With a couple of folders now complete with files in them, let's move them around.

One method is to use two windows. Right-click the Work folder, and select Open in new window. You now have two windows open, one with the contents of Work and one with the contents of your home directory. Now copy the Invoices folder to the Work folder by clicking it and dragging it over to the second window (which shows the contents of Work). By default, dragging from one window to another copies the item.

Another option is to select what you want to copy and paste it. Selecting items can again be done in a number of ways. One method is to click each file/folder while holding down the Shift or Ctrl keys to make multiple selections. The difference between the two keys is that Shift allows you to select a number of files and folders next to each other, and Ctrl selects independent files and folders from anywhere in the folder-listing view. When you have selected what should be copied, right-click and select Cut or Copy. Cut will

copy the original files but remove them, and Copy will just copy them while leaving the original files intact. Now go to the destination folder, right-click it, and select Paste. The files/folders are now added.

Using the Sidebar

The sidebar in File Browser can be changed to a variety of views that should cater to virtually all tastes. Each of these different sidebar views has a range of functions. Table 3-1 explains each one.

Although you will probably stick with one in particular, it is not uncommon to switch between options to achieve a particular task. For this reason, the flexibility provided by the range of sidebar options is useful. You can find out more about using File Browser at http://live.gnome.org/DocumentationProject/UserGuide/Nautilus, where it is referred to using its official GNOME name, Nautilus.

TIP **Drag and Drop**
If you want to put something in the Places view, drag and drop the item. The Ubuntu desktop is filled with drag-and-drop shortcuts like this. If you think something could be dragged and dropped, try it!

Table 3-1 The Different File Browser Sidebar Options

Option	Feature
Places	(Default view) Includes the devices and bookmarks in the sidebar that you typically see in the File Browser.
Information	Displays some limited information about the current folder.
Tree	Displays a tree view similar to Windows/Mac OS X. Those of you who love the way Windows/Mac OS X works may want to use this.
History	Displays a history of the folders you have clicked on.
Notes	Allows you to write notes in the sidebar that are stored in the folder. This is handy when you need to explain or make comments about the current folder.
Emblems	Lists the files and folders that have specific emblems attached.

Graphically Accessing Remote Files

Within the Ubuntu desktop, you can use the same powerful file manager to manage files that are on a remote server, either on your local network or in far-flung parts of the world via the Internet. This feature is incredibly useful when you need to transfer lots of files around, such as when you work on Web pages or need to make your work remotely available to someone else. To access these files, you can connect to the server in various ways, each of which requires a connection profile. This profile configures the connection, and you need to gather your server's settings to create it.

To set up the connection, click Places > Connect to Server, and you will see the dialog shown in Figure 3-14.

When the dialog box appears, select the type of connection from the combo box. The box then adjusts to display the settings required, and you should make sure the Name to Use for Connection box contains a descriptive name for the connection, such as "Work Server" or "Web Site." When you have added the settings, click the Connect button to continue.

An icon now appears on your desktop for the connection. Double-click the icon, and you are asked for a password to the server. Enter this password, and you are then asked if you would like to store your passwords in the keyring. The desktop keyring provides a convenient place to store all of your connection passwords, and you need to remember only the password

Figure 3-14 Access your remote server's files graphically on your desktop.

for the keyring itself. If you choose to store the password in the keyring, you are asked for a password for it. In the future, whenever you double-click the icon to access the server, you will be asked for the keyring password.

When you have been authenticated to access the server, your files appear in a file manager window, and you can use the file manager as normal.

You can also use File Browser to access Samba and NFS shared drives, FTP servers, remote ssh connections, and more by using the correct prefix in an entry in the Location box, such at ssh://accountname@192.168.1.109 to access an account on a computer at that IP address on your network via ssh. Use smb:// for Samba, nfs:// and ftp:// for those protocols.

QUICK TIP You can learn more about the protocols File Browser can use to connect to shared storage and how to use them at http://library.gnome.org/users/user-guide/stable/gosnautilus-515.html.en.

Ubuntu and Multimedia

In recent years, multimedia has become an essential part of computing. Watching DVDs and videos and listening to CDs and music have become part and parcel of the modern desktop computer experience. These multimedia capabilities have been further bolstered by the huge popularity of legal music downloading. With a range of online stores for a variety of different types of music, it is not uncommon to listen to most of your music without ever seeing a little shiny silver disk.

Installing Codecs

Multimedia files and disks come in a variety of different types, and each type uses a special codec to compress the content to a smaller size while retaining a particular level of quality. To play this media, you need to ensure that you have the relevant codecs installed. Ubuntu now makes this easier by suggesting packages that provide a suitable codec when you open a file that isn't supported by the ones that are currently installed. Simply double-click the file you want to open, and you should be provided with a

list of packages that you can install to enable support for the file you have tried to open. Select the packages that seem appropriate, and click Install.

QUICK TIP If you double-click a file but no packages are suggested, you may need to change the package filter in the top right-hand corner to All Available Applications.

Codecs still remain a problem for open source software because of the legal restrictions placed upon them. Certain codecs (including MP3, Windows Media Format, QuickTime, and RealMedia) are proprietary and as such have restrictions placed on their use, distribution, and licensing.

Although developers in the open source community have gone away and created free implementations of some of these codecs, the licensing that surrounds them conflicts with the legal and philosophical position that Ubuntu has set. These codecs are excluded not only because they are legally dubious but also because they disagree with Ubuntu's ethic of creating a distribution that consists entirely of free software in the most free sense of the word.

QUICK TIP If you want to find out more about installing these codecs, see https://help.ubuntu.com/community/RestrictedFormats.

To work toward resolving these problems, a number of developers are working on free codecs such as Ogg Vorbis and Ogg Theora that provide high-quality results and open licensing. The Ogg Vorbis codec is used on audio and can provide better results than MP3 at a smaller file size. The Ogg Theora codec is used for video and competes with the MPEG-4 codec. Ubuntu includes the Ogg Vorbis and Ogg Theora codecs by default, and you can encode and play back any media that uses those codecs out of the box.

Although the world would be a better place if all codecs were free, the reality is different, and many Ubuntu users still want to play media compressed with proprietary codecs. Table 3-2 shows the most typical codecs used to encode and play back media and lists their support in Ubuntu.

Table 3-2 Codec Support

Codec	File Type	Included	Supported
MP3	.MP3	No	Yes
Ogg	.ogg	Yes	N/A
Flac	.flac	Yes	N/A
Windows Media Audio	.wma	No	Yes*
Wave	.wav	Yes	N/A
MPEG-1	.mpg	No	Yes
MPEG-2	.mpg	No	Yes
Raw DV	.dv	Yes	N/A
Quicktime	.mov	No	Yes*
Windows Media Video	.wmv	No	Yes*

* These codecs involve the installation of nonfree software that may or may not be legal in your country.

Listening to Audio Files

Ubuntu includes a powerful music player called Rhythmbox to organize and play your music file collection. By default, Ubuntu will look for music in the Music directory accessible in the Places menu.

Using Rhythmbox Load Rhythmbox (Figure 3-15) by clicking on Applications > Sound & Video > Rhythmbox Music Player. The Rhythmbox window is split into a number of different panes, each displaying different details about your music collection. The left pane (Source) lets you select the source of the music, such as your media library, podcasts, and Internet radio. Each of these options has a browser pane available to display the source of the content. As an example, when you use the Library, one pane displays the artists and one displays the albums. You can use this to navigate your music.

Listening to Podcasts Podcasts are audio shows that you can subscribe to, and they are increasingly becoming the new way to listen to audio and music. When you subscribe to a podcast, each new release is automatically downloaded for you. This makes it extremely convenient to regularly listen to audio shows.

Figure 3-15 Rhythmbox is a great place to look after your music collection.

Rhythmbox has good support for Podcast feeds, and subscribing to a feed is simple. In the sidebar, right-click the Podcasts entry and click New Podcast Feed. Paste in the feed by right-clicking the box and selecting Paste. The files are automatically downloaded, and you can listen to them by double-clicking on them. Each time you start Rhythmbox, a check is made to see if any new episodes exist, and if so, they are downloaded.

NOTE **Rhythmbox and iPods**
Rhythmbox can also read songs from your iPod—just plug it in and it will display in Rhythmbox. Rhythmbox can read from the iPod but may not be able to write to all iPods.

Playing and Ripping CDs

When you pop a CD into your CD drive, Audio CD Extractor (Sound Juicer) automatically loads to play your CD. If you are connected to the Internet, the CD is looked up on the Internet, and the album details and song titles are displayed.

Ripping Songs as Oggs Sound Juicer is not just a CD player but a ripper too. Using a ripper you can convert the songs on the CD into files that you can play on your computer. By default, Sound Juicer rips the files in the Ogg format, which provides better sound quality than MP3 at a smaller size. By default, the ripped files are stored in the format discussed earlier, with each artist as a folder and albums as subfolders.

To rip the songs, just select the checkboxes of the songs you want ripped (by default, all songs are selected), and then click Extract. Each song is then stored in your Music folder, and the song titles are used as the names of the files.

Ripping Songs as FLACs Sound Juicer is capable of supporting the audiophile-preferred FLAC format. Just change the output format in the program's preferences.

Ripping Songs as MP3s Although the default Ogg support or free FLAC formats are recommended in most situations, you may prefer to rip MP3 files if you have a digital audio player that does not support Ogg or FLAC files. To do this, you need to configure Sound Juicer to enable MP3 support.

You should first use Synaptic to install the gstreamer0.10-plugins-ugly-multiverse package (see Chapter 4 for more details on installing packages). Next, in Sound Juicer, click Edit > Preferences and choose the CD Quality, MP3 (MP3 audio) profile from the Output Format options.

Buying Music

Canonical has added a special new option within Rhythmbox. You may now buy music through the Ubuntu One Music Store alongside Jamendo and Magnatune. While Jamendo and Magnatune are great sources for creative commons and other open-licensed music, for the first time, major and minor label artists will have their music available directly from within Ubuntu. These are the songs you would typically find in your local record shop or on a radio station. Music in the Ubuntu One Music Store will be encoded at a minimum of 256 kbps in MP3 format without any digital rights management (DRM). An Ubuntu One account (mentioned earlier in the chapter) is required to purchase music.

NOTE You can learn more about the Ubuntu One Music Store at https://wiki.ubuntu.com/UbuntuOne/MusicStore.

Interacting with Photos

F-Spot is a photo management program that you may use to import your pictures, organize them, and perform basic touch-ups like removing red eye, cropping, or simple color adjustment. When F-Spot imports photos, it reads the metadata embedded in the image file and then sorts the images by date. Once done, it creates a timeline that allows you to view photos easily as a group, individually, and even as a full-screen slideshow. You can export your photos individually or in groups directly from F-Spot to well-known Web services like Flickr or Google's Picasa, to a folder, or even to a CD you could give to a friend or family member. You can find F-Spot in the menu at Applications > Graphics > F-Spot Photo Manager. More information about F-Spot is available at https://help.ubuntu.com/community/F-SpotHowto.

Watching Videos

To watch videos in Ubuntu, you need to ensure that you have the correct codecs installed. As discussed earlier, some of these codecs are available separately due to the legal implications of including them with the Ubuntu system. Although the new process for suggesting and installing codecs should cover most popular types of files, you should still refer to the Ubuntu wiki at http://wiki.ubuntu.com for details of how to install ones that are not recognized.

Using Totem To watch videos in Ubuntu, you use the Totem media player (Figure 3-16). Load it by clicking Applications > Sound & Video > Movie Player.

To watch a video on your hard disk, click Movie > Open, and select the file from the disk.

TIP **Another Way to Load Files into Totem**
You can also load multimedia files into Totem by double-clicking them on your desktop or in the file manager.

Figure 3-16 Totem is a simple and flexible media player.

Totem also supports video streams. To watch a stream, click Movie > Open Location, and enter the Internet address for the stream. The video feed is then loaded and displayed.

Getting DVDs to Work Ubuntu comes with DVD support for unencrypted DVDs. With the DVD industry being what it is, the majority of DVDs come encrypted, and if you want to watch them, you need to ensure that a library that can decrypt these DVDs is installed. Unfortunately, this library needs to be installed separately and is not included with Ubuntu. Refer to the Ubuntu restricted formats page at https://help.ubuntu.com/community/RestrictedFormats for details.

With the library installed, insert a disk into your computer, and Ubuntu will automatically start Totem to view the disk. Alternatively, fire up Totem, and click Movie > Play Disk to play the DVD. Totem doesn't support DVD menus but you can still use it to play a DVD.

If you are settling down to watch a movie, you may want to configure a few other settings. First click View > Aspect Ratio to select the correct aspect ratio for your screen, and then select View > Fullscreen to switch to full-screen mode. To exit full-screen mode, just move your mouse, and some on-screen controls will appear.

TIP **Control Totem with a Remote Control**
Totem supports the Linux Infrared Control (LIRC) library so you can use a remote control while watching your media.

If you want to use a remote control with your Ubuntu computer, you need to install the Linux Infrared Control (LIRC) package in Synaptic. LIRC is the library, and it supports a wide range of remote control units.

The first step is to determine which LIRC driver is required for your particular remote control. Take a look at the list of remotes on the LIRC site at www.lirc.org, or use your favorite search engine if your remote is not listed on the site.

LIRC includes a number of built-in drivers. You can see which ones are included by running the following command:

```
foo@bar:~$ lircd –driver=help
```

When you know which driver is required and you know your installed LIRC supports your hardware, you can edit the hardware.conf file in the /etc/lirc file to configure which one is used. Simply set the DRIVER line to the driver you selected. Then restart LIRC:

```
foo@bar:~$ /etc/init.d/lirc restart
```

With LIRC ready and running, you can test it by running the following command:

```
foo@bar:~$ /etc/init.d/lirc restart
```

When you press the buttons on your remote control, a code should appear. This code can be mapped to a button on your remote by editing the lircd.conf file in /etc/lirc. For more information, see http://help.ubuntu.com/community/LIRC.

Creating Videos

PiTiVi is a movie editor that is based on the same media framework as Rhythmbox and Totem, GStreamer. As a result, it handles any video format supported by GStreamer, which makes it very powerful indeed. It has interface options ranging from the simplicity of iMovie to a more complex professional view, as in Complex View. The goal is an easy-to-use but powerful piece of software for taking your video footage from your camera and editing it, adding effects and transitions, and mixing audio to create your own personal cinematic masterpiece. More information about PiTiVi is available at www.pitivi.org. PiTiVi can be found in your menu at Applications > Sound & Video > Pitivi Video Editor.

Exploring the Ubuntu Landscape

Unlike many other operating systems, Ubuntu includes a comprehensive suite of applications right inside the system. This range of tools has been selected to allow you to install Ubuntu and get your work done, communicate with other people, read and create documents, watch and/or listen to media, and more. Unfortunately, due to space restrictions, this book can only skim over the surface of available applications.

To help remedy this a bit, here is a quick summary of many of the applications listed on the Applications menu in Ubuntu, including how to find the applications and a brief description.

- **gedit Text Editor**

  Applications > Accessories > gedit Text Editor

  This simple yet powerful text editor is ideal for editing documents, making quick notes, and programming. Included is a range of plugins for spell checking, statistics, file listings, and more.

- **Calculator**

  Applications > Accessories > Calculator

  For those times when you need to figure out a percentage or calculate whether you are getting a raw deal from your employer, the calculator is there. It provides a range of functionality for simple and scientific calculations.

- **Terminal**

  Applications > Accessories > Terminal

  Underpinning the desktop is an incredibly powerful command-line core. This application puts a window around a command-line interface and allows you to configure transparency, fonts, behavior, and more. Essential for the command-line junkies among you.

- **Quadrapassel (ex-Gnometris)**

  Applications > Games > Quadrapassel

  If you have too much time on your hands, a surefire way to waste it is to play this version of Tetris. If you decide that single-player Tetris is not enough, you can install gtetrinet from the Ubuntu Software Center.

- **Mahjongg**

  Applications > Games > Mahjongg

  For those of you who actually understand the rules of Mahjongg, this application provides a great implementation of the game.

- **Sound Recorder**

  Applications > Sound & Video > Sound Recorder

  If you need to record something, such as your voice for a podcast or audio message, you can use this simple tool.

- **System Monitor**

  System > Administration > System Monitor

  To get an idea of the current performance or load on your computer, click on this tool. The System Monitor lets you know which

applications are running and how much memory/processing power they are using, and it also allows you to kill or restart processes that are hogging the resources.

- **Sudoku**

  Applications > Games > Sudoku

  The increasingly popular logic game arrives on Ubuntu.

- **Disk Usage Analyzer**

  Applications > Accessories > Disk Usage Analyzer

  Bits and bytes never looked so good! In case you were wondering exactly where all your disk space had gone, this will help solve the mystery.

Other Applications to Try There are literally thousands of available packages that can be installed on your Ubuntu computer. These packages span a range of different areas, and this section highlights some of the popular ones. Software installation is covered in Chapter 4.

- **Inkscape**

  Package to install: inkscape

  Inkscape (Figure 3-17) is a drawing package for creating Scalable Vector Graphics (SVG). Ever since the SVG format was introduced, it has taken the design world by storm. SVG allows the creation of graphics that can scale to any size. Inkscape is a hugely flexible tool for creating such graphics, and a huge range of icons and artwork in open source projects are made in Inkscape.

- **Gimp**

  Package to install: gimp

  The GIMP Image Editor (Figure 3-18) is a powerful raster or bitmap graphics program that lets you draw, paint, edit images, and much more. It is similar to proprietary graphics programs and has the ability to process and create images using layers, plug-ins, and much more.

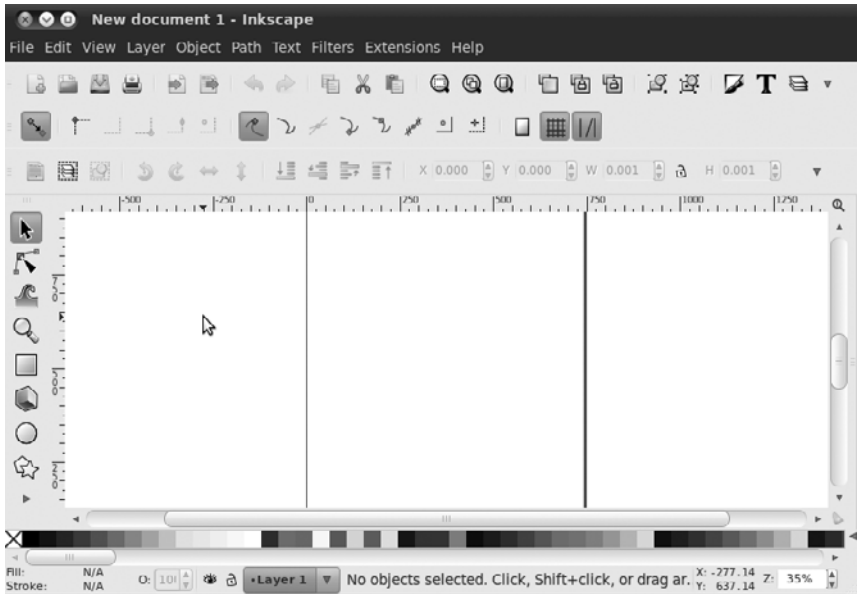

Figure 3-17 Inkscape

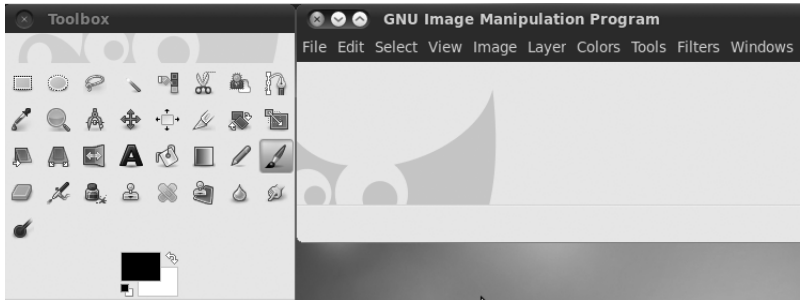

Figure 3-18 GIMP Image Editor

- **Blender**

  Package to install: blender

  Blender (Figure 3-19) is an incredibly powerful 3D modeling, animation, rendering, and production studio. Blender amasses an impressive range of functionality for creating photorealistic scenes, animations, and real-time virtual walkthroughs. Blender is also fully scriptable in Python.

Figure 3-19 Blender

- **Scribus**

  Package to install: scribus

  Scribus (Figure 3-20) lets you lay out pages graphically and create publication-ready output in PDF and Postscript formats. It is ideal for newsletters, magazines, technical documentation, and more. It supports CMYK color, Unicode text, and many graphic formats in the creation process.

- **Bluefish Editor**

  Package to install: bluefish

  For those of you who want to create Web pages but prefer to write code, Bluefish Editor (Figure 3-21) is a lightweight but feature-rich editor with support for a range of languages as well as HTML and CSS.

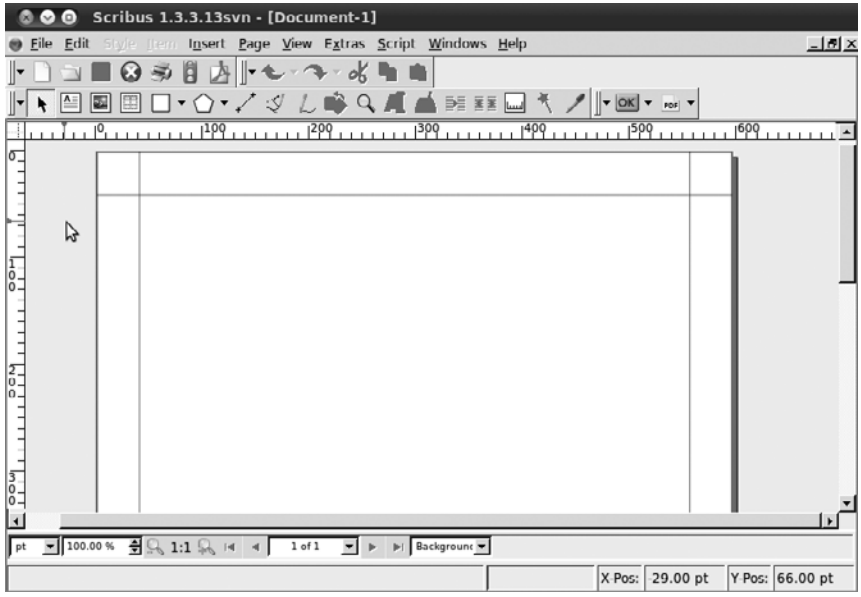

Figure 3-20 Scribus

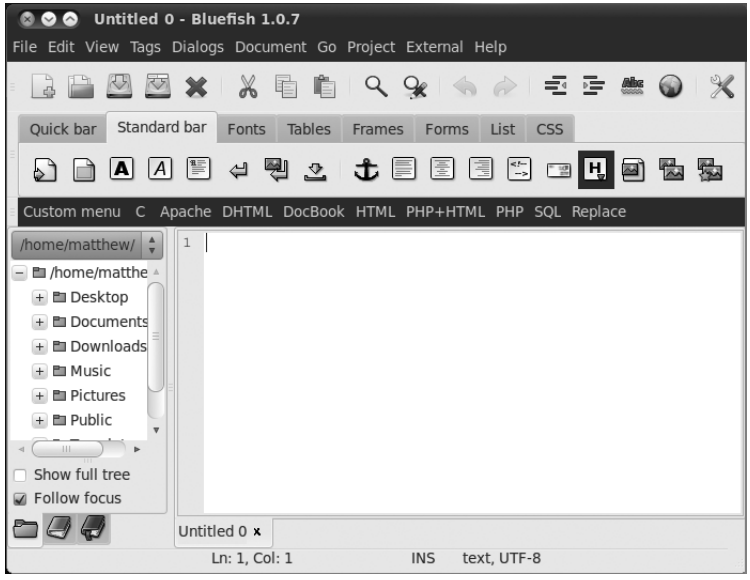

Figure 3-21 Bluefish

- **Tracker Search Tool**

  Package to install: tracker

  Have you ever tried to search your computer for a file, but couldn't remember the file's name? Tracker (Figure 3-22) was created to help in these situations by indexing the contents of your hard drive using the metadata and tags attached to your files and allowing you to search with greater precision and accuracy.

- **Audio CD Extractor**

  Package to install: sound-juicer

  Many of us have legally purchased compact disks that we would like to listen to using our computer or portable music player. Audio CD Extractor (Figure 3-23) will help you record the songs to your hard drive so you may do so. With this package installed, it is also possible to rip a CD from within Rhythmbox, making the process even more convenient.

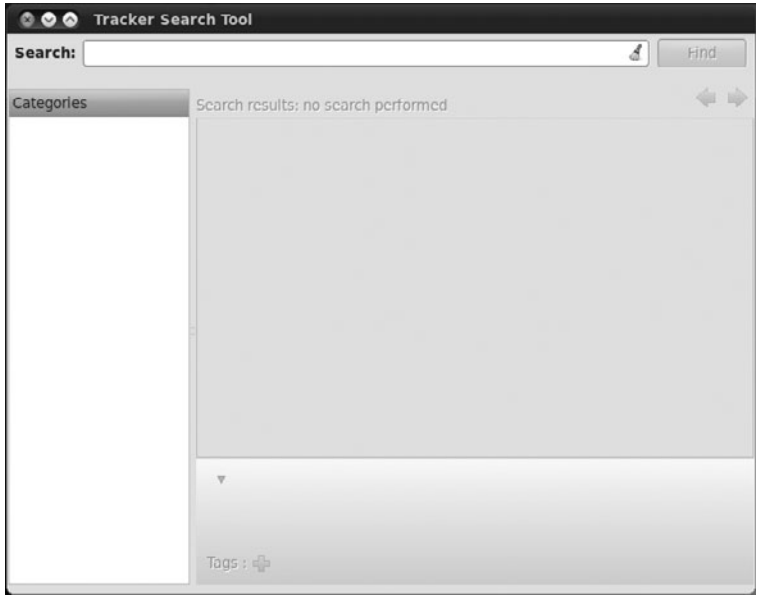

Figure 3-22 Tracker

Figure 3-23 Sound Juicer: An audio CD extractor

Moving to the Next Ubuntu Release

So your system is up to date and current, but Ubuntu doesn't like to let the grass grow. One of the original goals for Ubuntu was to have frequent releases, and with only one notable exception (the 6.06 LTS release, which was delayed by two months), there have been six months between each release since 4.10. This book has been revised for the latest version—10.04—but another release will be along soon. Release 10.04, like the earlier 8.04 and 6.06, is a Long Term Support (LTS) version of Ubuntu, supported for three years on the desktop and five on the server. All other versions are supported for eighteen months and at the same time are superseded by a new version every six months. Essentially, if you are running the LTS version, you might not be too interested in moving to the latest and greatest

until the next LTS version comes out, but if you are running a regular release version, you might be the sort of person who is more interested in the latest and greatest software updates. In either case, this is how you perform the upgrade.

Doing the Actual Upgrade

A graphical tool called Update Manager, found in the System > Administration menu, tells you when a new version of Ubuntu is available and walks you through the upgrade process. Note that if you already know or want to learn the manual method, that is fine too. Both means will achieve the same result.

When a new release is available, Update Manager will alert you, as in Figure 3-24. All you need to do is click on the Upgrade button to start the process. You will first be shown the release notes, which mention new features or any outstanding bugs. After you click on the Upgrade button on

Figure 3-24 Upgrading from Ubuntu 9.10 using Update Manager and an Internet connection

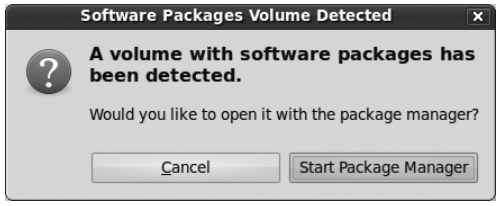

Figure 3-25 Upgrading from Ubuntu 9.10 using a 10.04 CD

this screen, the necessary changes to your software repositories are made, and then the program downloads and installs the new distribution. You may be prompted if you have changed any configuration files. After the actual installation is complete, you will be told which, if any, packages are no longer officially supported by Ubuntu (have moved to the universe repository). Last, all you need to do is restart your computer when prompted, and you will begin enjoying the new release.

You can also initiate an upgrade simply by inserting a CD that contains a newer version of Ubuntu than the one you are currently running, as shown in Figure 3-25. Follow the prompts for an upgrade experience similar to using the update manager.

Summary

In this chapter, you've learned how to start using the core features of your new desktop. These concepts should allow you to perform most of the day-to-day tasks when using your computer and provide a base from which to explore the other applications installed on your system. This solid grounding in the desktop paves the way for you to meander through the rest of the book, learning about the more advanced uses of your new system and exploring the enormous flexibility that Ubuntu provides.

Always remember that there is a wealth of help and documentation available online. If you ever find yourself stuck, take a look at the Ubuntu Web site at www.ubuntu.com or the Ubuntu documentation at http://help.ubuntu.com and make use of the forums, wiki, mailing lists, and IRC channels. Much of this is easily found in links provided for you in System > About Ubuntu in your menu.

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