

Beginning Ubuntu Linux

Third Edition



Keir Thomas and Jaime Sicam

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Beginning Ubuntu Linux, Third Edition

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Dedicated to you, now that you have a choice
—Jaime Sicam

Contents at a Glance

About the Authors	xxiii
About the Technical Reviewers	xxv
Acknowledgments	xxvii
Preface	xxix
Introduction	xxxi

PART 1 ■■■ Introducing the World of Linux

■ CHAPTER 1	Welcome!	3
■ CHAPTER 2	A History and Politics Lesson	13
■ CHAPTER 3	The Realities of Running Linux	23

PART 2 ■■■ Installing Ubuntu

■ CHAPTER 4	Preinstallation Steps	31
■ CHAPTER 5	Installing Ubuntu	43
■ CHAPTER 6	Solving Installation Problems	75

PART 3 ■■■ The No-Nonsense Getting Started Guide

■ CHAPTER 7	Bootting Ubuntu for the First Time	97
■ CHAPTER 8	Getting Everything Up and Running	117
■ CHAPTER 9	How to Secure Your Computer	175
■ CHAPTER 10	Personalizing Ubuntu: Getting Everything Just Right	213
■ CHAPTER 11	Ubuntu Replacements for Windows Programs	257
■ CHAPTER 12	Managing Your Files	279

PART 4 ■■■ The Shell and Beyond

■ CHAPTER 13	Introducing the BASH Shell	303
■ CHAPTER 14	Understanding Linux Files and Users	321
■ CHAPTER 15	Working with Text Files	347
■ CHAPTER 16	Taking Control of the System	365
■ CHAPTER 17	Cool Shell Tricks	377

PART 5 ■■■ Multimedia

■ CHAPTER 18	Digital Audio	391
■ CHAPTER 19	Movies and Multimedia	413
■ CHAPTER 20	Digital Photos	429

PART 6 ■■■ Office Tasks

■ CHAPTER 21	Making the Move to OpenOffice.org	453
■ CHAPTER 22	OpenOffice.org Overview	463
■ CHAPTER 23	In Depth: Writer	479
■ CHAPTER 24	In Depth: Calc	491
■ CHAPTER 25	In Depth: Impress	501
■ CHAPTER 26	In Depth: Base	511
■ CHAPTER 27	In Depth: Evolution	521

PART 7 ■■■ Keeping Your System Running

■ CHAPTER 28	Installing and Removing Software	545
■ CHAPTER 29	Managing Users	575
■ CHAPTER 30	Optimizing Your System	585
■ CHAPTER 31	Backing Up Data	599
■ CHAPTER 32	Scheduling Tasks	613
■ CHAPTER 33	Accessing Computers Remotely	619

PART 8 ■■■ Appendixes

■ APPENDIX A	Glossary of Linux Terms	635
■ APPENDIX B	BASH Command Index	657
■ APPENDIX C	Getting Further Help	671
■ APPENDIX D	Exploring the DVD-ROM and Other Ubuntu Versions	681
■ INDEX	695

Contents

About the Authors	xxiii
About the Technical Reviewers	xxv
Acknowledgments	xxvii
Preface	xxix
Introduction	xxxi

PART 1 ■■■ Introducing the World of Linux

■ CHAPTER 1	Welcome!	3
	What Is Linux?	3
	The Age of Linux	5
	The Problems with Windows	6
	The Benefits of Linux	8
	Fewer Crashes	8
	Security	8
	Free and Shareable	9
	No Annoying Copy Protection or Usage Restrictions.....	9
	The Linux Community	9
	Summary	11
■ CHAPTER 2	A History and Politics Lesson	13
	In the Beginning	13
	The GNU Project	16
	Proprietary Software and the GPL	17
	GNU and Linux Together	18
	Different Flavors of Linux	19
	Linux Today	20
	Modern Linux Development	20
	Summary	21

CHAPTER 3	The Realities of Running Linux	23
	Learning to Use Linux	23
	Who Uses Linux?	24
	Getting Hold of Linux	25
	Using Ubuntu	26
	Summary	27

PART 2 ■■■ Installing Ubuntu

CHAPTER 4	Preinstallation Steps	31
	Understanding Partitioning	31
	Freeing Up Space	33
	Reclaiming Space	34
	Removing Windows	35
	Using Another Hard Disk	35
	Backing Up Your Data	37
	Backing Up E-Mail Files	38
	Making Notes	39
	Summary	41
CHAPTER 5	Installing Ubuntu	43
	An Overview of the Installation Process	43
	Step-by-Step Guide	46
	Stage 1: Prepare the Windows Partition for Resizing	46
	Stage 2: Boot from the DVD-ROM	48
	Stage 3: Choose Language Settings	50
	Stage 4: Select from the Boot Menu	50
	Stage 5: Choose a Language for Ubuntu	52
	Stage 6: Select Your Country and Time Zone	53
	Stage 7: Confirm Your Keyboard Layout	54
	Stage 8: Repartition Your Hard Disk	55
	Stage 9: Enter a Username	66
	Stage 10: Import Documents and Settings	68
	Stage 11: Confirm Installation Choices	69
	Stage 12: Wait During Installation	70
	Stage 13: Reboot and Enjoy Ubuntu!	71
	Summary	74

CHAPTER 6	Solving Installation Problems	75
	Preinstallation Problems	75
	Installation Problems	79
	Postinstallation Problems	81
	Graphical Problems	84
	Using the Screens and Graphics Utility	86
	Summary	93

PART 3 ■■■ The No-Nonsense Getting Started Guide

CHAPTER 7	Booting Ubuntu for the First Time	97
	Starting Up	97
	Logging In	99
	Exploring the Desktop	100
	First Impressions	101
	Shutting Down or Restarting Ubuntu	103
	Desktop Elements	105
	Quick Desktop Guides	107
	Running Programs	110
	Working with Virtual Desktops	111
	Using the Mouse	113
	Cutting and Pasting Text	114
	Summary	115
CHAPTER 8	Getting Everything Up and Running	117
	Ubuntu Hardware Support	117
	Proprietary vs. Open-Source Drivers	118
	Installing Device Manager	119
	How to Configure Ubuntu	121
	Using the Command Line	122
	Installing Software	122

Getting Online	124
Using NetworkManager	124
Configuring an Ethernet Network Device	125
Connecting to a Wireless Network	128
Installing Windows Wireless Network Device Drivers	131
Using Dial-Up Telephone Modems	141
Working with a Proxy Server	144
Configuring Power-Saving Features	145
Using Power-Management Preferences	145
Spinning Down the Hard Disk	149
Adding a Printer	150
Configuring a Local Printer	150
Configuring a Network Printer	152
Configuring a Windows/SMB Shared Printer	154
Administering a Printer	156
Using Digital Cameras, MP3 Players, and USB Memory Sticks	157
Configuring a Scanner	158
Installing 3D Drivers and Activating Desktop Visual Effects	160
Configuring Bluetooth	163
Pairing Bluetooth Devices	163
Transferring Files Between Bluetooth Devices	164
Using a Bluetooth Keyboard or Mouse	166
Configuring Sound Cards	168
Configuring E-Mail and Instant Messaging	169
Configuring E-Mail Access	169
Setting Up Instant Messaging	171
Summary	173

■ CHAPTER 9 How to Secure Your Computer	175
Windows Security vs. Linux Security	176
Root and Ordinary Users	177
Encryption	179
Setting Up for Encryption	180
Encrypting and Decrypting Files	190
Signing and Encrypting E-Mail	194

Common-Sense Security	196
Online Updates	197
Configuring the Ubuntu Firewall	200
Installing Firestarter	201
Configuring Firestarter	202
Adding Virus Scanning to Ubuntu	207
Installing ClamTk	208
Updating the ClamAV Database	208
Scanning for Viruses	209
Dealing with Infections	210
Summary	212

CHAPTER 10 Personalizing Ubuntu: Getting Everything Just Right	213
Changing the Look and Feel	213
Altering the Theme	214
Changing the Wallpaper	219
Setting Font Preferences	222
Configuring General Interface Options	224
Using Desktop Visual Effects	225
Configuring Input Devices	233
Configuring Mouse Options	233
Changing Keyboard Settings	237
Creating Keyboard Shortcuts	240
Personalizing Login Options	240
Changing Your Login Picture	245
Adding and Removing Desktop Items	246
Adding a Shortcut	246
Personalizing the Panels	248
Adding and Removing Menus	249
Moving Panel Items	251
Working with Applets	251
Summary	256

CHAPTER 11	Ubuntu Replacements for Windows Programs	257
	Available Software	257
	A Quick Start with Common Linux Programs	259
	Word Processing: OpenOffice.org Writer	260
	Spreadsheet: OpenOffice.org Calc	261
	Presentations: OpenOffice.org Impress	263
	Database: OpenOffice.org Base	264
	E-Mail/Personal Information Manager: Evolution	265
	Web Browser: Firefox	266
	Audio Playback: Rhythmbox and Sound Juicer	268
	Movie Playback: Totem Movie Player	269
	CD/DVD Burning: Nautilus and Brasero	270
	Photo Editing: The GIMP	271
	Other Handy Applications	273
	Summary	278
CHAPTER 12	Managing Your Files	279
	Understanding File System Concepts	279
	Drive References	279
	Names of Files	280
	File Access and Storage	281
	Using Nautilus	283
	Searching for Files	286
	File and Folder Icons	287
	Special Nautilus Windows	288
	Launching Files and Running Programs	289
	Accessing Windows Files	291
	Working with Files in Windows Partitions	292
	Accessing Networked Files	294
	Sharing a Folder from Within Ubuntu	297
	Accessing Removable Storage Devices	298
	Working in the Computer Window	298
	Ejecting Media	299
	Summary	300

PART 4 ■■■ The Shell and Beyond

CHAPTER 13	Introducing the BASH Shell	303
	What Is the BASH Shell?	303
	Why Bother with the Shell?	305
	When Should You Use the Shell?	307
	Getting Started with the Shell	307
	Running Programs	309
	Getting Help	310
	Running the Shell via a Virtual Console	311
	Working with Files	313
	Listing Files	314
	Copying Files and Directories	316
	Moving Files and Directories	316
	Deleting Files and Directories	318
	Changing and Creating Directories	319
	Summary	320
CHAPTER 14	Understanding Linux Files and Users	321
	Real Files and Virtual Files	321
	Users and File Permissions	324
	Viewing Permissions	325
	Altering Permissions	330
	Changing the Ownership of a File	331
	The File System Explained	333
	Mounting	337
	Using the mount Command	337
	Mounting a Drive Manually	338
	Removing a Mounted System	340
	File Searches	342
	Using the find Command	342
	Using the locate Command	343
	Using the whereis Command	344
	File Size and Free Space	344
	Viewing File Sizes	344
	Finding Out the Amount of Free Space	345
	Summary	346

CHAPTER 15	Working with Text Files	347
	Viewing Text Files	347
	Using the cat Command	347
	Using the less Command	348
	Using the head and tail Commands	348
	Using a Command-Line Text Editor	350
	Understanding vim Modes	351
	Using vim to Edit a File	355
	Creating a New Text File Using vim	357
	Searching Through Files	358
	Using grep to Find Text	358
	Using Regular Expressions	359
	Comparing Text Files	361
	More Text Tools	362
	Summary	364
CHAPTER 16	Taking Control of the System	365
	Viewing Processes	365
	Controlling Processes	368
	Killing Processes	369
	Controlling Zombie Processes	370
	Using Other Commands to Control Processes	371
	Controlling Jobs	373
	Summary	375
CHAPTER 17	Cool Shell Tricks	377
	Using Autocompletion	377
	Autocompletion with Files and Paths	378
	Viewing Available Options	378
	Using Keyboard Shortcuts	379
	Shortcuts for Working in BASH	379
	Shortcuts for System Control	380
	Using the Command History	381
	Piping and Directing Output	383
	Piping the Output of Commands	383
	Redirecting Output	385
	Summary	387

PART 5 ■■■ Multimedia

CHAPTER 18	Digital Audio	391
	Issues Surrounding Multimedia Playback	391
	Playing Audio Files	393
	Installing Codecs	394
	Using Rhythmbox	397
	Purchasing from Online Music Stores	399
	Purchasing from Magnatune	400
	Using the Jamendo Store	400
	Tuning In to Online Radio Stations	401
	Listening to Podcasts	402
	Listening to Audio CDs	404
	Ripping Music from CDs	405
	Choosing a Format	406
	Adding MP3-Ripping Support to Sound Juicer	407
	Ripping Tracks	408
	Creating Your Own CDs	409
	Installing Skype	411
	Summary	412
CHAPTER 19	Movies and Multimedia	413
	Installing Playback Software	413
	Installing Codecs	414
	Installing RealPlayer	416
	Adding Flash Support	417
	Adding Java Support	419
	Watching Movies	420
	Watching DVDs	423
	Watching TV	426
	Checking for Video Input	426
	Installing tvtime	426
	Summary	427

CHAPTER 20	Digital Photos	429
	Downloading and Cataloging Images	429
	Connecting Your Camera	429
	Importing Photos Using F-Spot	430
	Image Editing Using GIMP	434
	The Basics of GIMP	440
	Making Color Corrections	442
	Cropping and Healing	444
	Sharpening	445
	Applying Filters	446
	Summary	449

PART 6 ■■■ Office Tasks

CHAPTER 21	Making the Move to OpenOffice.org	453
	Office Similarities	453
	OpenOffice.Org Key Features	454
	File Compatibility	455
	The Right Fonts	458
	Copying Windows Fonts	458
	Installing TrueType Core Fonts	459
	Summary	461
CHAPTER 22	OpenOffice.org Overview	463
	Introducing the Interface	463
	Customizing the Interface	465
	Adding Functions to Toolbars	465
	Adding a New Toolbar	467
	Customizing Menus	468
	Configuring OpenOffice.org Options	469
	Using OpenOffice.org Core Functions	474
	Using Wizards	474
	Getting Help	474
	Inserting Objects with Object Linking and Embedding	474
	Creating Macros	475
	Saving Files	476
	Summary	477

CHAPTER 23	In Depth: Writer	479
	Formatting Text	479
	The Formatting Toolbar	479
	Context Menu	480
	The Style and Formatting Palette	481
	Spell-Checking	481
	Inserting Pictures	483
	Working with Tables	484
	Mail Merging	486
	Adding Headers and Footers	489
	Summary	490
CHAPTER 24	In Depth: Calc	491
	Entering and Formatting Data	491
	Deleting and Inserting Data and Cells	492
	Working with Formulas	493
	Using the Function Wizard	493
	Summing Figures	494
	Sorting Data	495
	Creating Charts	496
	Using Filters	498
	Summary	499
CHAPTER 25	In Depth: Impress	501
	Creating a Quick Presentation	501
	Working in Impress	503
	Animating Slides	504
	Applying Fontwork	506
	Using 3D Effects	507
	Exporting a Presentation As a Flash File	509
	Summary	510

CHAPTER 26	In Depth: Base	511
	Getting Started with Base	511
	Creating a Database	514
	Adding a Table	514
	Creating a Form	516
	Adding Controls to the Form Manually	517
	Editing the Database Table	518
	Using the Database	519
	Summary	520
CHAPTER 27	In Depth: Evolution	521
	Evolution Modes	521
	Basic E-Mail Tasks	523
	Sending and Receiving E-Mail	524
	Reading E-Mail	526
	Deleting Messages	526
	Flagging Messages	527
	Composing a Message	528
	Creating an E-Mail Signature	529
	Advanced E-Mail Tasks	530
	Creating New Folders	531
	Dealing with Junk E-Mail	532
	Sorting and Filtering Messages	532
	Creating Search Folders	533
	Contacts	535
	Adding or Editing Contact Information	535
	Creating a Contact List	537
	Calendars	537
	Specifying Appointment Types	537
	Adding or Editing a Diary Entry	538
	Memos and Tasks	540
	Summary	541

PART 7 ■■■ Keeping Your System Running

CHAPTER 28	Installing and Removing Software	545
	Software Installation Basics	545
	Formats of Linux Installation Files	546
	Package Management	547
	Dependency Management	548
	Software Repositories	549
	The Synaptic Package Manager in Depth	553
	Searching for Software	553
	Installing Software	555
	Removing Software	557
	Package Management from the Command Prompt	558
	Using dpkg	558
	Using the APT Tools	561
	Managing Software Repositories	565
	Using Software Sources	566
	Adding/Removing a Repository at the Command Line	568
	Installing from Source	569
	Installing the Compiler Tools	569
	Unpacking the Source Tarball and Solving Dependencies	570
	Compiling	571
	Summary	573
CHAPTER 29	Managing Users	575
	Understanding User and Group Accounts	575
	Users and Groups	575
	Root User	576
	UIDs and GIDs	577
	Adding and Deleting Users and Groups	577
	Adding and Deleting Users via the GUI	578
	Creating and Deleting Groups via the GUI	580
	Adding and Deleting Users and Groups at the Command Line	580
	Adding and Changing Passwords	583
	Summary	584

CHAPTER 30	Optimizing Your System	585
	Speeding Up Booting	585
	Reducing the Boot Menu Delay	586
	Enabling Automatic Login	587
	Managing GNOME Sessions	589
	Prelinking	593
	Configuring Prelinking	594
	Deactivating Prelinking	594
	Freeing Up Disk Space	596
	Emptying the /tmp Folder	596
	Emptying the Cache of Package Files	597
	Removing Unused Software	597
	Summary	598
CHAPTER 31	Backing Up Data	599
	What Data Should You Back Up?	599
	Using Simple Backup	601
	Backing Up Data via Simple Backup	601
	Restoring Data via Simple Backup	605
	Making Backups from the Command Line	606
	Creating tar Files	606
	Compressing tar Archives	607
	Extracting Files from a tar Archive	608
	Viewing tar Archive Information	608
	Saving the File to a CD-R/RW	609
	Saving the File to a DVD	610
	Summary	611
CHAPTER 32	Scheduling Tasks	613
	Scheduling with cron	613
	Creating a Scheduled Task	613
	Scheduling with anacron	616
	Using at to Schedule One-Off Tasks	618
	Summary	618

CHAPTER 33	Accessing Computers Remotely	619
	Using Secure Shell	619
	Logging In to a Remote Computer	620
	Transferring Files Between Remote Computers	623
	Accessing GUI Applications Remotely	626
	Running X Applications on a Remote Computer	626
	Accessing Ubuntu via Remote Desktop	627
	Connecting to Remote Windows Computers	629
	Connecting to Windows Vista	629
	Connecting to Windows XP Professional, 2000, and NT	630
	Connecting to Other Computers	631
	Summary	632

PART 8 ■■■ **Appendixes**

APPENDIX A	Glossary of Linux Terms	635
APPENDIX B	BASH Command Index	657
APPENDIX C	Getting Further Help	671
APPENDIX D	Exploring the DVD-ROM and Other Ubuntu Versions	681
INDEX		695

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Jaime Sicam

Preface

Linux has come a long way in a short time. Computing itself is still relatively young by any standard; if the era of modern computing started with the invention of the microchip, it's still less than 50 years old. But Linux is a youngster compared even to this; it has been around for only 17 of those years.

In that brief time span, a student's personal project has grown to where it now runs many computers throughout the world. It has rampaged through the computing industry, providing an alternative to commercial solutions such as those offered by Microsoft, and toppling long-held beliefs about the way things should be done. This is all by virtue of the fact that Linux is simply better than every other choice out there. Many argue that it's more secure and faster than other operating systems. But here's the kicker—Linux is free of charge. Yes, that's right. It doesn't have to cost a penny. It is one of the computing industry's best-kept secrets.

I was bitten by the Linux bug in the mid-1990s. I was introduced to it by a friend who sold it to me as a kind of alternative to DOS. At that time, I typed a few commands at the prompt and was greeted by error messages. I must admit that I was put off. But shortly afterwards, I revisited Linux and quickly became hooked.

Yet getting used to Linux wasn't easy. I read as many books as I could, but they weren't very helpful to me. They were usually overly complicated or simply irrelevant. To start off, I didn't want to know how to create a program that could parse text files. I just wanted to know how to copy and delete files. I didn't want to set up a web server. I just wanted to know how to play my MP3 tracks and browse the Web.

This book is my answer to the need for a fundamental, authoritative, and down-to-earth guide to Linux, done in the context of one of the most popular flavors of Linux in existence today. It's a book that is desperately needed in our modern world, especially as Linux becomes more and more popular and enters homes and workplaces.

Beginning Ubuntu Linux, Third Edition purely and simply focuses on what you need to know to use Linux. It's concise and to the point, aiming to re-create under Linux all the stuff you used to do under Windows, or even Apple Macintosh. But don't think that this means *Beginning Ubuntu Linux, Third Edition* cuts corners. Wherever justified, this book spends time examining the topics you need to know in order to gain a complete and comprehensive understanding. For example, you'll find a hefty chapter looking at the command-line prompt—arguably the heart of Linux and the element that gives Linux most of its power. There's also an entire chapter discussing (and illustrating) how to initially install Ubuntu on your computer. *Beginning Ubuntu Linux, Third Edition* really is a complete guide.

Introduction

Linux applies an alternative philosophy to computing that revolves around the sharing of not only software but also knowledge. To use Linux is to become part of a huge global community of people who have caught on to a phenomenon that is changing the world.

Ubuntu (www.ubuntulinux.org) is the natural continuation of these goals. It's a project founded by entrepreneur businessman Mark Shuttleworth with the intention of bringing a freely available, high-quality operating system to the world. To this end, Shuttleworth invested \$10 million of his own money to guarantee that this will be the case for many years to come.

The fundamental concept is that Ubuntu is available for use by anyone in the world, no matter who they are or where they are. As such, many different languages are supported, and the operating system can also be accessed by those with disabilities, such as partial sight or hearing. Ubuntu might just as easily be found on a Wall Street banker's laptop as on a battered, old computer in a Brazilian favela.

Ubuntu is built around one of the most established versions of Linux: Debian (www.debian.org). The Debian Project was started back in 1993, shortly after the very first version of the Linux software was released, and has become one of the pioneering varieties of Linux. Ubuntu and Debian Linux both share common goals and are closely allied, but Ubuntu focuses largely on the desktop. It provides a powerful office suite by default, for example, as well as some excellent pieces of Internet software. It is only recently that a dedicated server version has become available.

It's also very easy to use. Ubuntu works straight out of the box. As soon as it's installed, you should be ready to start using it without any further work. In addition, tasks such as updating your software are as easy under Ubuntu as they are under Windows. Above all, however, Ubuntu is designed to be shared. You can take the DVD-ROM included with this book and install Ubuntu on as many computers as you want. You can also copy it as many times as you want and give those copies to your friends. We're serious! This isn't some kind of trick either—Ubuntu isn't a trial version that will quit running in a month. You will *never* find yourself having to pay a fee further down the line, even if you want to install additional software. Ubuntu will always be free of charge.

Since its inception in 2004, Ubuntu has literally taken the world of Linux by storm, and has even broken out of the technically demanding world of open source software. It's consistently voted the most popular desktop Linux, and has even garnered a handful of celebrity users along the way: Jamie Hyneman of the popular TV show *MythBusters* is a fan, as is novelist and blogger Cory Doctorow. Within some Internet communities, such as Digg.com and Reddit, you'll struggle to find individuals who don't use Ubuntu.

Ubuntu's popularity has been echoed in corporate interest: Dell (www.dell.com) now offers a range of computers with Ubuntu preinstalled, as does System 76 (<http://system76.com>) and, in the United Kingdom, Tesco (www.tesco.com).

What You'll Find in This Book

Beginning Ubuntu Linux, Third Edition is divided into eight parts, each of which contains chapters about a certain aspect of Ubuntu use. These parts can be read in sequence, or you can dip in and out of them at will. Whenever a technical term is mentioned, a reference is made to the chapter where that term is explained.

Part 1 examines the history and philosophy behind the Linux operating system. We aim to answer many of the common questions about Linux. Such knowledge is considered to be as important, if not more so, than understanding the technical details on how Linux works. But while these chapters should be read sooner rather than later, they don't contain any technical information that you absolutely require to get started with Ubuntu.

Part 2 covers installing Ubuntu on your computer. An illustrated guide is provided, and all installation choices are explained in depth. Additionally, you'll find a problem-solving chapter to help, just in case anything goes wrong.

Part 3 focuses on getting started with Ubuntu. It covers setting up the Linux system so that it's ready to use. One chapter is dedicated to setting up common hardware devices, such as printers, and another explains how you can secure your system. Other chapters in this part explore the desktop, explaining what you need to know to begin using Ubuntu on a daily basis.

In Part 4, we take a look at how the underlying technology behind Linux functions. You're introduced to the command-line prompt, and you learn how the file system works. It's in these chapters that you'll really master controlling Linux!

Part 5 covers multimedia functions available for Ubuntu users, which let you watch movies and play back music. We also take a look at the image-editing software built into Ubuntu.

Part 6 moves on to explain how typical office tasks can be accomplished under Ubuntu. We investigate OpenOffice.org, the complete office suite built into Ubuntu. After an introduction to OpenOffice.org, separate chapters explore its word processor, spreadsheet, database, and presentation package. You also learn how to use the Evolution e-mail and personal information manager program.

Part 7 carries on from Part 4 and takes an even more in-depth look at the underlying technology behind Ubuntu. This time, the emphasis is on giving you the skills you need to keep your system running smoothly. You learn how to install software, manage users, optimize your system, back up essential data, schedule tasks, and access computers remotely.

Finally, Part 8 contains four appendixes. The first is a glossary of Linux terms used not only in this book but also in the Linux and Unix worlds. The second appendix is a quick reference to commands typically used at the command-line prompt under Linux. The third appendix explains how to get further help when using Ubuntu, and the fourth explains how to use the DVD-ROM and the differences between the various versions of Ubuntu.

What's New in the Third Edition

The original edition of *Beginning Ubuntu Linux* was the first English-language book to provide a guide to using Ubuntu, and it remains one of the best. Successive editions of the book have tracked the changes within the Ubuntu project, and improved each time.

This third edition of *Beginning Ubuntu Linux* has been thoroughly updated and revised to take into account improvements introduced with the 8.04 Long Term Support (LTS) release of Ubuntu (code-named Hardy Heron). The previous edition covered the 6.10 release. The changes introduced with the 8.04 release, as well as some of the improvements in versions between 8.04 and 6.10, are sometimes subtle but often dramatic. Take automated multi-media setup, for example. This now makes it a piece of cake to play back virtually any kind of video or audio file. How it works is fully explained in Chapters 18 and 19. Desktop visual effects have also been introduced, so that windows can be made to wobble and shake, or just shrink visibly to the Taskbar, aiding usability significantly. This is explained in Chapters 8 and 10. Security has been beefed up significantly, and encryption is now a standard feature of Ubuntu (and is astonishingly easy to use as well). This is explained in depth in Chapter 9, along with other security improvements.

About the DVD-ROM Supplied with This Book

The DVD-ROM attached to the book is completely new, compared to that offered with the first and second editions. This edition offers a double-sided DVD-ROM that contains virtually every official release of Ubuntu 8.04, including not only the main Ubuntu release, but also Kubuntu, Edubuntu, Xubuntu, and some releases for alternative hardware platforms, such as older PowerPC-based Macintosh computers.

By booting from the DVD-ROM, you can opt to install Ubuntu or run in “live” mode, which means that the entire operating system boots from the disc and doesn’t touch your hard disk. This can be useful for those who wish to “try out” Ubuntu, but there are a handful of caveats, which we explain in Chapter 5.

The contents of the DVD-ROM are explained in detail in Appendix D.

Conventions Used in This Book

The goal when writing *Beginning Ubuntu Linux* was to make it as readable as possible while providing the facility for readers to learn at their own pace.

Throughout the book, you'll find various types of notes and sidebars complementing the regular text. These are designed to provide handy information to help further your knowledge. They also make reading the book a bit easier.

■ **Note** A note is designed to provide an important piece of information that you should know and that will help your understanding of the topic being discussed.

■ **Tip** A tip is something that will help when you need to perform the task being described. Alternatively, it might be something that can make your life easier when using Ubuntu.

■ **Caution** A caution is something you should certainly pay attention to, because it warns of a hidden danger or particular caveat that applies to the topic being discussed.

In the sidebars, we take a moment to explain something that you should know, but that isn't vital to an understanding of the main topic being discussed. You don't need to read the sidebars there and then; you can return to them later if you wish.