

CONTENTS IN DETAIL

ABOUT THE AUTHORS xxi

Rickford Grant	xxi
Phil Bull	xxiii

ACKNOWLEDGMENTS xxvii

INTRODUCTION xxxix

Version Compatibility	xxxix
Concept and Approach	xxxix
How to Use This Book	xxxvi
About the Conventions Used in This Book	xxxvi
About the Projects in This Book	xxxvi

1 BECOMING A PENGUINISTA Welcome to the World of Linux 1

What Is Linux?	2
About the Penguin	3
Why Should You Use Linux?	3
Is It All Just About Money?	4
But Is Linux Really Ready for the Desktop?	4
What Is a Distribution?	5
What Is Ubuntu?	5
Why Ubuntu Then?	6
Hardware Compatibility	7
Diving In	7
When Research Is Required	8
Hardware Requirements	9
Good News for 64-Bit Machine Users	9
Mixed News for Mac Users	10
Speaking Ubuntu	10
Where Do I Go from Here?	10

2 WADING AND DIVING Running and (If You Like) Installing Ubuntu 11

Going for a Dip	12
Choices, Choices, Choices—Installation Options	13
Going for a Swim—Installing Ubuntu Inside Windows (the Wubi Installer)	13
Taking the Full Plunge—Installing Ubuntu Outside of Windows	16

Getting Ready for Action	17
Doing the Deed	18
How Can I Get Back into Windows?	24
Oh No, My Computer Won't Boot!	24

3

A NEW PLACE TO CALL HOME

Getting to Know the Desktop

25

Welcome to the GNOME Desktop	25
The Top Panel	27
The Left End	27
The Right End	27
The Bottom Panel	29
Project 3A: Customizing the GNOME Panel	29
3A-1: Adding Utility Buttons to the Panel	30
3A-2: Adding Amusing Applets to the Panel	31
3A-3: Adding a Program Launcher to the Panel	31
3A-4: Changing Panel Launcher Icons	33
3A-5: Adding a Drawer to the Panel	35
3A-6: Adding Program Launchers to the Drawer	35
3A-7: Adding the Entire Contents of a Menu to the Panel	36
3A-8: Moving Things Around on the Panel	37
More Panel Fun	37
Project 3B: Manipulating Menus	38
3B-1: Changing Icons Within Menus	38
3B-2: Changing the Order of Icons Within Menus	39
Virtual Desktops	40
Wanda Revisited—GNOME Easter Eggs	41
Shutting Down	43

4

MORE THAN WEBBED FEET

Connecting to the Internet

45

How Do You Connect?	46
Setting Up a Wired Connection	46
Checking Your Connection	46
Setting Up a Cable or Ethernet Connection for Providers Not Using DHCP	47
Setting Up a Wireless Connection	49
Hardware	49
Activating Your Wireless Card	50
Switching Off or Refreshing Your Wireless Connection	51
Connecting with a DSL or ADSL Modem	52
Setting Up a Dial-up Connection	53
What to Do If Your Modem Isn't Compatible	54
Mobile (3G) Broadband Connections	55
I'm Connected . . . So Now What?	57

5 SLIPPING AND SLIDING Exploring the Internet, Linux Style 59

Firefox: Your Internet Browser	60
Controlling Browser Window Clutter with Tabs	60
Keeping Up-to-Date with Live Bookmarks	62
Pop-up Manager	62
Multimedia Plug-Ins	62
Project 5: Installing Firefox Extensions	66
5-1: Downloading and Installing the ScribeFire Extension	67
5-2: Setting Up the ScribeFire Extension	69
Email with Evolution	69
An Email Alternative: Thunderbird	70
Chatting with Your Friends via Empathy	71
Starting a Chat	71
Telling People When You Don't Want to Chat	73
Microblogging—Twitter and Friends	74
Other Internet Applications	77

6 ROUNDING OUT THE BIRD Downloading, Installing, and Updating Programs the Easy Way 79

Project 6A: Installing Applications via the Ubuntu Software Center	80
6A-1: Selecting Applications for Installation	81
6A-2: Searching for Applications	81
6A-3: Uninstalling Applications	82
Performing System Upgrades via Update Manager	82
How Often Should You Install Updates?	83
If an Update Ruins Your Day . . . or System	84
Adding Extra Software Repositories	86
APT-URL: Installing from Websites	88
Project 6B: Installing Software from a PPA: OpenSonic	88
Project 6C: Installing DEB Packages Not Available via the Ubuntu Repositories: Skype	90

7 A TIDY NEST File and Disc Handling in Ubuntu 93

Nutilus: Your File Manager	94
The Side Pane	95
Now You See It; Now You Don't	95
File Handling in Nautilus	96
Creating, Naming, and Renaming Folders	96
Moving Files and Folders	97
Copying Files and Folders	97
Navigating in Nautilus	98
Browsing with Breadcrumbs in Nautilus	98

Spelling It Out—Typing File Paths in Nautilus	99
Bookmarks Within Nautilus	99
Understanding the Linux Filesystem	100
What’s in All Those Other Folders?	101
Using Nautilus as a Network Browser	101
Using Nautilus as an FTP Client	103
File and Folder Permissions Within Nautilus	103
Reading Data CDs and DVDs	106
Burning Data CDs and DVDs	106
Dealing with CD-RWs	108
Burning ISO Images to Disc	109
Creating Your Own ISO Images	110
Burning Multisession CDs	110
Burning Subsequent Sessions	111
Duplicating CDs and DVDs	111
USB Storage Devices	112
Working with Bluetooth Devices	113
Pairing Devices	113
Sending Files by Bluetooth	115
Receiving Files by Bluetooth	115
Backing Up Your Files	116
Recovering from a Backup	118
Removing Unwanted Files	119
Project 7: Creating and Extracting Compressed Files	119

8

DRESSING UP THE BIRD

Customizing the Look and Feel of Your System 123

Project 8A: Creating a New User Account	124
8A-1: Creating the Account	124
8A-2: Logging In to Your New Account	125
Project 8B: Customizing Your Desktop Environment	126
8B-1: Adding Emblems to Folders	126
8B-2: Setting Window Backgrounds (and Emblems Again)	127
8B-3: Dolling Up the Side Pane (and Emblems Yet Again)	129
8B-4: Changing the Desktop Background	129
8B-5: Hiding the Bottom Panel	132
8B-6: Downloading and Installing the Art Manager (GNOME Art)	133
8B-7: Changing Window Borders, Controls, and Icon Sets	134
8B-8: Installing Additional Window Borders, Controls, and Icons	136
8B-9: Changing the Order of the Window Buttons	138
8B-10: Placing Home and Trash Icons on the Desktop	139
8B-11: Stretching Desktop Icons	140
8B-12: Doing It All Again!	141
Font Feathered Frenzy: Changing Your Fonts	141
Project 8C: Installing TrueType Fonts	143
8C-1: Getting the Font Files	143
8C-2: Installing Fonts Locally	144
8C-3: Installing TrueType Fonts Globally	145

Project 8D: Changing Your Login Screen	145
8D-1: Beautifying the Login Screen	146
8D-2: Adding a Picture to Your User Account	147
8D-3: Logging In Automatically	148
Choosing a Screensaver	149
Taking Screenshots	150
Customizing Visual Effects	151

9

SIMPLE KITTEN WAYS

Getting to Know the Linux Terminal and Command Line . . . and the Cool Things It Can Do **155**

Meet the Terminal	156
Some Goofy Yet Useful Fun with the Command Terminal	158
Nontoxic Commands	158
\$ whoami	158
\$ finger	159
\$ pwd	161
\$ df	161
\$ ls	162
\$ calendar	162
\$ exit	162
Commands with Some Teeth	162
\$ mkdir	163
\$ mv	163
\$ cd	163
\$ cp	164
\$ rm	164
\$ rmdir	165
\$ chmod	165
\$ sudo	167
\$ locate	167
\$ apt-get	168
\$ aptitude	169
A Couple of Other Bites You'll Be Using Soon	171
\$ ln	171
\$ tar	171
Project 9A: Creating a Plan	173
Project 9B: More Command Practice with pyWings	174
9B-1: Getting Ready for pyWings (Installing Tkinter)	176
9B-2: Getting pyWings	176
9B-3: Creating a LocalApps Folder for pyWings	176
9B-4: Extracting the pyWings Tarball	177
9B-5: Moving the pyWings Folder to Your LocalApps Folder	177
9B-6: Running pyWings	178
9B-7: Creating a Launchable Link for pyWings	178
9B-8: Running pyWings Again	179
9B-9: Adding Emblems to Your LocalApps Folder	180
Project 9C: Command Practice Review with Briscola	180
9C-1: Getting Briscola	180
9C-2: Extracting the Briscola Tarball and Renaming the Briscola Folder	181

9C-3: Preparing the Briscola Script	181
9C-4: Moving the Briscola Folder to a Global Location	182
9C-5: Creating a Launchable Link for Briscola	183
Can You Do the Same Thing with pyWings?	183
Playing Briscola	183
Project 9D: Compiling and Installing Programs from Source: Xmahjongg	184
So, What Is Source?	184
The Basics	185
9D-1: Installing the Tools You Need	185
9D-2: Downloading and Extracting the Xmahjongg File	185
9D-3: Running configure and make for Xmahjongg	187
9D-4: Installing and Running Xmahjongg	188
9D-5: Cleaning Up and/or Uninstalling Xmahjongg	189
Customizing the Terminal	189
Tabbed Shell Sessions in the Terminal	191

10

GUTENBIRD

Setting Up and Using Your Printer and Scanner 193

Printers	194
Confirming That Your Printer Is Supported	194
Getting Ubuntu to Automatically Recognize and Set Up Your Printer	194
Manually Configuring Printers	196
Setting Up Printers Connected Over a Network	198
For the Driverless Among You	199
Printing Details	200
Scanners	204
Scanning, No Questions Asked, with Simple Scan	204
Not-So-Simple Scanning with XSane	205
Unrecognized Scanners	207
Why Are My Scanned Images So Big?	207
Which Resolution Should I Use When Scanning?	208

11

POLYGLOT PENGUINS

Linux Speaks Your Language 211

Read-Only Language Support	212
Typing Nonstandard Characters	213
Using the Compose Key Option	213
Adding Keyboard Layouts	215
Chinese, Japanese, and Korean Input	216
Chinese	217
Japanese	217
Korean	218
Project 11: Setting Up Asian-Language Support	219
11-1: Selecting Input Method Modules	219
11-2: Typing Asian Languages with IBus	221
Setting Up IBus to Automatically Start Up When You Log In	223
Viewing Your System in Another Language	223

12
PENGUINS AT WORK
Getting Down to Business in Linux **227**

OpenOffice.org	227
OpenOffice.org Applications	228
Microsoft Office and OpenOffice.org File Compatibility	231
OpenOffice.org Features	232
Getting to Know the Buttons	232
Word Processing Done Lightly with AbiWord	238
Some Other Cool Productivity Apps	239
Sticky Notes	239
Tomboy	240
GnuCash	240
Scribus	241

13
BRUSH-WIELDING PENGUINS
Linux Does Art **243**

Project 13A: Importing Images from Digital Cameras	244
13A-1: Importing Images from Camera to Computer Somewhat Automatically via F-Spot	244
13A-2: Transferring Images from Camera to Computer via Nautilus	246
Project 13B: Working with Digital Images in F-Spot Photo Manager	247
13B-1: Exporting Images to Online Albums and Galleries	247
13B-2: Organizing Your Photo Collections with Tags	249
Getting Arty with the GIMP	250
Using the GIMP to Resize Images and Convert File Formats	251
Learning More	252
Phatch Photo Batch Processor	252
Using Phatch	253
gpaint	254
Inkscape	255
Project 13C: Installing Picasa	256
13C-1: Downloading and Installing the Picasa Package	256
13C-2: Running and Setting Up Picasa	257
A Few Other Graphics Apps to Consider	257
gThumb Image Viewer	257
Blender	258
QCAD	258
Tux Paint	260

14
TUX ROCKS
Music à la Linux **261**

Audio File Formats	261
Project 14A: Installing MP3 Support for Audio Apps	262
Rhythmbox—Your Audio Player	264

Adding Songs and Albums to the Rhythmbox Library	264
Ripping Audio CDs with Rhythmbox	265
Browsing the Rhythmbox Library	265
Creating Playlists in Rhythmbox	266
Online Music Stores via Rhythmbox	267
Other Cool Features in Rhythmbox	267
Project 14B: Listening to Streaming Media with Rhythmbox	268
14B-1: Adding Radio Streams to Rhythmbox	268
14B-2: Adding Additional Radio Streams to Rhythmbox	269
Creating Audio CDs	269
Burning Audio CDs with Rhythmbox	269
Burning Audio CDs with Brasero	270
Project 14C: Listening to RealMedia Streams with RealPlayer	271
14C-1: Downloading and Installing RealPlayer	271
14C-2: Setting Up RealPlayer and Testing Your Installation	271
Other Cool Audio Apps	272
Alternative Players	272
Streaming Music with Streamtuner	272
EasyTAG and Audio Tag Tool	273
LMMS	274
Audacity	274
MuseScore	274

15

PLUGGIN' IN THE PENGUIN

Working with Your iPod, iPhone, and Other Digital Media Devices

277

Knowing Your Limits	278
Mounting and Ejecting Your iPod or iPhone	278
(Not) Auto-updating Your iPod or iPhone	279
Working with Android-Based Phones	280
Working with Other Digital Media Players and Cell Phones	282
Managing Your Audio Device's Audio Files with Rhythmbox	282
Copying Songs from Your Audio Device to Your Hard Disk	284
Ejecting Your iPod or Other Digital Device from Within Rhythmbox	285
Problems Writing to Your iPod	285
Working with Photos on Your Digital Device	285
Converting Audio File Formats	287
Playing Locked AAC (M4P) Files	288
Linux on Your iPod?	289
Working with . . . Your iPad?	289

16

COUCH PENGUINS

Video and DVD Playback in Ubuntu

291

DVDs	291
Project 16A: Installing Support for Encrypted DVDs	292
Can I Play Foreign DVDs?	292

Totem Movie Player	293
Using Totem to Play DVDs, VCDs, and Other Multimedia Files	294
Totem as an Audio Player?	294
A Couple of Other Cool Totem Features	295
An Alternative to Totem: VLC Media Player	296
Editing Digital Video with PiTiVi	297
Project 16B: Capturing Digital Video with Kino	299
16B-1: Installing Kino and Setting Up Your System	300
16B-2: Capturing and Editing Digital Video with Kino	300
Other Video Apps	303

17

FEATHERED FLIPPERS

Linux Gaming

305

Project 17A: Expanding Your Game Collection via the Ubuntu Software Center	306
17A-1: Installing Missing GNOME Games	306
17A-2: Installing Some Linux Classics: Frozen Bubble, Tux Racer, and Pingus	307
3D Games	310
Checking for Hardware Acceleration	310
Shooting Games	311
Strategy Games	313
Simulators	314
Even More 3D Games—Beyond the Ubuntu Software Center	317
Project 17B: Installing a Java-Based Game: Schnapsen	318
17B-1: Installing the Java Runtime Environment	318
17B-2: Getting and Extracting Schnapsen	319
17B-3: Running and Anglicizing Schnapsen	320
Online Gaming	321
Searching for More Games	321

18

PENGUINS AT THE GATES

Working with Ubuntu in a Windows World

323

Project 18A: Accessing Files on Your Windows Partition (for Dual-Booters)	324
18A-1: Mounting Your Windows Partition	324
18A-2: Unmounting Your Windows Partition	325
Accessing a Linux Partition While Running Windows	325
Project 18B: Installing Microsoft Windows Core Fonts	326
Dual-Bootting: Changing the Boot Order and Timeout	327
Linux Equivalents to Your Windows Applications	329
Project 18C: Running Windows Programs	329
18C-1: Installing and Testing Wine	330
18C-2: Installing a Windows Application in Wine	330
18C-3: Getting Windows Apps to Work in Wine with PlayOnLinux	332
Installing Windows Inside Ubuntu	334
Sharing Files with Windows Users on Your Network	337
Accessing Files Stored on a Windows Computer	337
Making Your Files Accessible from a Windows Computer	337

19

DEFENDING THE NEST

Security

339

Does My System Need Protection?	340
The First Line of Defense	340
Software Firewalls	342
Taking Control of Firestarter	344
Confirming That Firestarter Runs Automatically	344
Finding Out More	344
ClamAV: Antivirus Software, Linux Style	344
Project 19A: Virus Scanning with avast!	346
19A-1: Downloading the avast! DEB Package and License Key	346
19A-2: Running and Using avast!	346
Project 19B: Encrypting Your Files	348
19B-1: Creating an Encrypted File Folder	348
19B-2: Recovering Encrypted Files If Something Goes Wrong	349
Project 19C: Shredding Documents Digitally	350
19C-1: Trying the shred Command	350
19C-2: Taking the shred Command Graphical in Nautilus	351

20

A COLONY OF PENGUINS

The Ubuntu Community

355

Take Me to Your SABDFL	356
Launchpad: Your Passport to the Ubuntu Community	357
Bugs, Bugs, Glorious Bugs	358
What Counts as a Bug?	358
Reporting a Bug	359
Has It Already Been Reported?	360
A New Bug	361
What Happens Now?	362
When Will My Bug Be Fixed?	363
Faster Fixes	363
Sharing Ideas on How to Improve Ubuntu	364
The Ubuntu Forums	365
Replying to a Post	366
Creating Your Own Thread	367
What's All This Bean Business?	367
Chatting on IRC	367
Registering Your Nickname	369
IRC Etiquette	370
More Help with IRC	371
An IRC Alternative: Mailing Lists	371
Keeping Up with the News	371
LoCos and LUGs	372
Stickers and Other Goodies	372
Getting Involved	373

21

WOUNDED WINGS

Fixing Common Problems

375

I Can't Get Ubuntu Installed	376
My Computer Won't Boot from the CD	376
I Can't Get the Installer to Run	377
The Installer Stops Partway Through	379
Something Goes Wrong Before Ubuntu Finishes Booting	379
I Get a GRUB Error	380
I Get a Kernel Panic or the Computer Freezes	380
Windows Won't Boot	383
Sound and Video Problems	384
Ubuntu Doesn't Play Any Sounds	385
My Microphone Doesn't Work	386
I Can't Play an Audio or Video File	387
Internet and Network Connection Problems	388
Finding the Cause of a Connection Problem	388
Installing Drivers for Your Network/Wireless Card	390
Check for Restricted Drivers	390
No Wireless Networks Are Found	392
Other Users on My Computer Can't Connect	393
Problems with the Display and Graphics Cards	394
Games/Compiz Don't Work: Installing Accelerated Graphics Drivers	394
The Screen Looks Stretched or the Wrong Size	395
The Screen Is Blank	396
Hard Disks and Storage Problems	397
My Disk Is Almost Full	397
My Disk Is Completely Full	398
I Can't Delete a File	398
Software Installation Problems	399
I Get an Error About Unauthenticated Packages	399
I Get a dpkg Error	399
I Have a Broken Update	400
Common Problems with Applications	400
Firefox Says It's Already Running	400
A Program Always Crashes	401
A Program Won't Start	401
My Computer Is Running Slowly	401
Lost Files	402
Where Can I Go to Get More Help?	404

A

INSTALLING UBUNTU FROM A USB FLASH DRIVE

405

Preparing the Installer Files	406
Creating a Bootable Installer Disk	406
Booting from the USB Disk	407

B
**UBUNTU DESKTOP CDS FOR AMD64, OPTERON,
OR INTEL CORE 2 USERS** **409**

Downloading and Burning Ubuntu Desktop CD ISOs to CD	409
Burning the ISO to CD in Windows	410
Burning the ISO to CD in OS X	410
Ordering an Install Disc from Ubuntu	411
Ordering an Install Disc from Other Online Sources	411

C
MANUALLY PARTITIONING YOUR HARD DISK **413**

Creating and Deleting Partitions	414
Editing Existing Partitions	416
Varieties of Partitions	416
Root Partition	416
Swap Partition	417
Home Partition	417
Windows Partition	417
Shared Partition	418
Example Partition Layouts	418
Standard Ubuntu-Only Installation	418
Ubuntu-Only with a Separate Home Partition	418
Ubuntu and Windows with a Shared Partition	420
Finishing Up	420

D
RESOURCES **421**

Forums	421
Linux Reference	422
Blogs	423
Hardware Compatibility Issues	423
Wireless Connections	423
Free Downloads	424
Applications and Other Packages	424
Free Fonts	424
News and Information	424
Magazines	424
Books	425
Ubuntu CDs	425

INDEX **427**