

Mandrakelinux 10.0

The Definitive Guide



(<http://www.mandrakesoft.com>)

Mandrakelinux 10.0: The Definitive Guide

Published 2004-05-03

Copyright © 2003-2004 Mandrakesoft SA

by Camille Bégnis, Christian Roy, Fabian Mandelbaum, Roberto Rosselli del Turco, Marco De Vitis, Alice Lafox, John Rye, Patricia Pichardo Bégnis, Wolfgang Bornath, Joël Wardenski, Debora Rejnharc Mandelbaum, Daniel Gueysset, Mickael Scherer, Jean-Michel Dault, Funda Wang, Lunas Moon, Céline Harrand, Fred Lepied, Pascal Rigaux, Thierry Vignaud, Giuseppe Ghibò, and Stew Benedict

Legal Notice

This manual (except for the parts listed in the table below) is protected under Mandrakesoft intellectual property rights. By reproducing, duplicating or distributing this manual in whole or in part, you explicitly agree to conform to the terms and conditions of this license agreement. This manual (except for the chapters listed in the table below) may be freely reproduced, duplicated and distributed either as such or as part of a bundled package in electronic and/or printed format provided however that the following conditions are fulfilled :

- That this copyright notice appears clearly and distinctively on all reproduced, duplicated and distributed copies.
- That the “front cover texts” below, *About Mandrakelinux*, page 1 and the section stating the names of authors and contributors are attached to the reproduced, duplicated or distributed version and remain unchanged.
- That this manual, specifically for the printed format, is reproduced and/or distributed for noncommercial use only.

The express authorisation of Mandrakesoft SA must be obtained prior to any other use of any manual or part thereof.

“Mandrake”, “Mandrakesoft”, “DrakX” and “Linux-Mandrake” are registered Trademarks in US and/or other countries. The related “Star logo” is also registered. All rights reserved. All other copyrights embodied in this document remain the property of their respective owners.

Front-cover texts

Mandrakesoft May 2004
<http://www.mandrakesoft.com/>
Copyright © 1999-2004 by Mandrakesoft S.A. and Mandrakesoft Inc.



The chapters listed in the table below are protected by a different license. Consult the table and links for more details about these licenses.

	Original Copyright	License
<i>"Building and Installing Free Software"</i> , page 481	by Benjamin Drieu , APRIL (http://www.april.org/)	GNU General Public License GPL (http://www.gnu.org/copyleft/gpl.html)

Tools Used in The Making of This Manual

This manual was written in XML DocBook. The set of files involved were managed using Borges (<http://linux-mandrake.com/en/doc/project/Borges/>). The XML source files were processed by xsltproc, openjade and jadetex using a customized version of Norman Walsh's stylesheets. Screen shots were taken using xwd or GIMP and converted with convert. All these programs are free and are available in your Mandrakelinux distribution.

Table of Contents

Preface	1
1. About Mandrakelinux	1
1.1. Contacting the Mandrakelinux Community	1
1.2. Join the Club.....	1
1.3. Purchasing Mandrakesoft Products	2
1.4. Contribute to Mandrakelinux	2
2. About this Definitive Guide to Mandrakelinux	3
3. Changes between 9.2 and 10.0 Versions of Mandrakelinux's The Definitive Guide	5
4. Note from the Editor	7
5. Conventions Used in this Book.....	7
5.1. Typing Conventions	7
5.2. General Conventions	8
1. Installation Warning.....	11
2. Before Installation	13
2.1. Configuring your BIOS.....	13
2.2. Creating a Floppy Boot Disk.....	13
2.2.1. Creating a Boot Disk With Windows.....	14
2.2.2. Creating a Floppy Boot Disk From GNU/Linux	15
2.3. Supported Hardware.....	16
2.3.1. What Is Not Supported.....	16
3. Installation with DrakX.....	19
3.1. The Mandrakelinux Installer	19
3.2. Choosing your Language.....	21
3.3. License Terms of the Distribution.....	24
3.4. Installation Class	24
3.5. Configuring your Mouse	26
3.6. Configuring the Keyboard.....	27
3.7. Security Level.....	29
3.8. Selecting the Mount Points	30
3.9. Choose Partitions to Be Formatted.....	32
3.10. Choose Packages to Install	33
3.10.1. Choose Package Groups to Install	33
3.10.2. Choose Individual Packages to Install	35
3.11. Multiple CD-ROM Installation	36
3.12. Root Password	37
3.13. Adding a User	38
3.14. Installing a Boot Loader	40
3.15. Check Miscellaneous Parameters.....	42
3.15.1. Summary	42
3.15.2. Time Zone Options	44
3.15.3. Configuring X, the Graphical Server.....	45

3.15.4. Selecting Available Services at Boot Time	46
3.16. Installing Updates from the Internet	48
3.17. It's Finished!	49
3.17.1. Advanced Options	49
3.18. How to Uninstall Linux	50
I. Discover	51
4. Migrating to Linux from Windows®/Mac OS X®	51
4.1. Where's my...?	51
4.2. A Brave New World!.....	54
5. Linux for Beginners	57
5.1. Introduction	57
5.2. The Boot-Loader Menu	57
5.3. Getting Ready for your Session	58
5.4. Beginning your Session	58
5.5. Using your Graphical Environment	63
5.6. Closing your Session.....	70
6. Where to Get Documentation	73
6.1. The Documentation Included with Mandrakelinux	73
6.2. Internet.....	76
6.3. General Guidelines for Solving a Problem under Mandrakelinux	79
7. Using KDE	83
7.1. Discovering the K Desktop Environment	83
7.2. Personalizing your Desktop.....	86
7.3. KDE Help System	88
7.4. KDE Sessions	90
8. Using GNOME	91
8.1. GNOME Overview	91
8.2. Personalizing GNOME	94
8.3. Getting Help.....	99
II. Using the Internet.....	103
9. Surfing with Mozilla	103
9.1. Mozilla Interface	103
9.2. Surfing the Web	104
9.3. Using the Sidebar.....	104
9.4. Managing Bookmarks	107
9.5. Tabbed Browsing	108
9.6. Installing Plugins.....	108
9.7. Password Management.....	109
10. Sending E-mail with Mozilla	113
10.1. Launching Mozilla Messenger.....	113
10.2. Configuring Mozilla Messenger	114
10.3. Mozilla Messenger Interface	120
10.4. Composing a Message	122

10.5. Organizing Your Mail Messages	124
10.6. Secure Messages Transmission.....	127
11. Instant Messaging and IRC	131
11.1. Instant Messaging Using Gaim	131
11.2. IRC Using X-Chat	137
III. Linux Office.....	147
12. The OpenOffice Suite	147
12.1. Word Processor.....	147
12.2. Spreadsheet	154
12.3. Presentation.....	161
13. Managing Files through Konqueror and Nautilus	171
13.1. File Managers: Konqueror and NautilusManaging your Files	171
IV. Sounds and Moving Images.....	179
14. Sounds and Moving Images	179
14.1. Audio Applications	179
14.2. Movie Applications	190
14.3. Webcams And Video Conferencing	194
15. Graphics Tools And Practical Devices	201
15.1. Graphic Art And Image Manipulation	201
15.2. Digital Photo Cameras.....	212
15.3. Installing and Using Scanners	217
15.4. Printing and Faxing from Applications	224
15.5. CD Burning	232
V. Configuring and Fixing your Machine	247
16. Introduction to the Mandrakelinux Control Center	247
16.1. What is in DrakConf.....	247
16.2. The Drakbug Reporting Tool	250
17. Configuration: Boot Section.....	253
17.1. Configuring the Login Mode	253
17.2. DrakBoot: Changing your Boot-Up Configuration.....	254
17.3. Customizing your Boot Theme	255
18. Configuration: Hardware Section	257
18.1. HardDrake: Configuring your Hardware	257
18.2. Controlling the Graphical Configuration.....	259
18.3. DrakxTV: Setting up a TV Card on your Computer.....	263
18.4. KeyboardDrake: Changing your Keyboard Layout	264
18.5. MouseDrake: Changing your Mouse.....	265
18.6. PrinterDrake: Configuring Printers	266
19. Configuration: Mount Points Section.....	277
19.1. DiskDrake: Managing your Hard Drive Partitions	277
19.2. Managing Removable Devices	283
19.3. Importing Remote SMB Directories	284

19.4. Importing Remote NFS Directories	286
19.5. Local Disk Sharing: Allowing Users to Share Folders	286
19.6. Setting up WebDAV Mount Points	288
20. Configuration: Network & Internet Section.....	291
20.1. Network and Internet Connection Management	291
20.2. Internet Connection Sharing	295
21. Configuration: Security Section	299
21.1. DrakSec: Securing your Machine	299
21.2. DrakPerm: Control File Permissions	302
21.3. DrakFirewall: Securing your Internet Access	304
22. Configuration: System Section	307
22.1. MenuDrake: Customizing your Menus	307
22.2. DrakXServices: Configuring Start-Up Services	311
22.3. DrakFont: Managing Available Fonts on your System	313
22.4. Setting your Machine's Date and Time	314
22.5. LogDrake: Searching through the Log Files	316
22.6. Access to the Console.....	318
22.7. UserDrake: Managing Users and Groups on your System	318
22.8. DrakBackup: Backing-Up and Restore your Files	322
23. Rpmdirake: Package Management.....	333
23.1. Install Software.....	334
23.2. Remove Software.....	337
23.3. Mandrakelinux Update.....	337
23.4. The Software Media Manager.....	338
23.5. Package Management through the Command Line.....	341
24. RFBDrake: Controlling a Remote Machine	345
24.1. Concepts	345
24.2. Installation and Setup	345
24.3. Connecting to a Windows™ Terminal Server.....	348
24.4. Remote Control in Action.....	349
24.5. Going Further	350
25. Synchronizing Directories between your Machines	351
25.1. Synchronization Types.....	351
25.2. DrakSync: Mandrakelinux's Graphical Sync Tool	354
26. Troubleshooting	361
26.1. Introduction	361
26.2. A Boot Disk	361
26.3. Backup	362
26.4. Restore	365
26.5. Problems Arising at Boot Time.....	367
26.6. Boot-Loader Issues	369
26.7. File System Issues	370
26.8. Recovering from a System Freeze	372
26.9. Killing Misbehaving Apps.....	373
26.10. Miscellaneous	374

26.11. Mandrake's Specific Troubleshooting Tools	375
26.12. Final Thoughts	375
VI. Introduction to Linux	379
27. Basic UNIX System Concepts	379
27.1. Users and Groups	379
27.2. File Basics	381
27.3. Processes	384
27.4. A Short Introduction to the Command Line	385
28. Introduction to the Command Line	391
28.1. File-Handling Utilities	391
28.2. Handling File Attributes	394
28.3. Shell Globbing Patterns	396
28.4. Redirections and Pipes	398
28.5. Command-Line Completion	400
28.6. Starting and Handling Background Processes: Job Control	401
28.7. A Final Word	403
29. Disks and Partitions	405
29.1. Structure of a Hard Disk	405
29.2. Conventions for Naming Disks and Partitions	408
30. Text Editing: Emacs and VI	411
30.1. Emacs	411
30.2. Vi: the ancestor	416
30.3. A last word	421
31. Command-Line Utilities	423
31.1. File Operations and Filtering	423
31.2. find: Find Files According to Certain Criteria	429
31.3. Commands Startup Scheduling	432
31.4. Archiving and Data Compression	434
31.5. Many, many more...	438
32. Process Control	439
32.1. More About Processes	439
32.2. Information on Processes: ps and pstree	439
32.3. Sending Signals to Processes: kill, killall and top	441
32.4. Setting Priority to Processes: nice, renice	442
VII. Linux in Depth.....	445
33. File-Tree Organization	445
33.1. Shareable/Unshareable, Static/Variable Data	445
33.2. The root Directory: /	445
33.3. /usr/: The Big One	446
33.4. /var/: Data Modifiable During Use	447
33.5. /etc/: Configuration Files	447
34. File Systems and Mount Points	449
34.1. Principles	449
34.2. Partitioning a Hard Disk, Formatting a Partition	451

34.3. The mount and umount Commands	451
35. The Linux File System	455
35.1. Comparison of a Few File Systems	455
35.2. Everything is a File	458
35.3. Links	460
35.4. "Anonymous" Pipes and Named Pipes	462
35.5. "Special" Files: Character Mode and Block Mode Files ..	464
35.6. Symbolic Links, Limitation of "Hard" Links	465
35.7. File Attributes	466
36. The /proc Filesystem	469
36.1. Information About Processes	469
36.2. Information on The Hardware	471
36.3. The /proc/sys Sub-Directory	474
37. The Start-Up Files: init sysv	477
37.1. In the Beginning Was init	477
37.2. Runlevels	478
VIII. Using the Mandrakelinux Control Center	481
38. Building and Installing Free Software	481
38.1. Introduction	481
38.2. Decompression	484
38.3. Configuration	487
38.4. Compilation	491
38.5. Installation	499
38.6. Support	500
38.7. Acknowledgments	501
39. Compiling and Installing New Kernels	503
39.1. Upgrading a Kernel Using Binary Packages	503
39.2. From The Kernel Sources	504
39.3. Unpacking Sources, Patching the Kernel (if Necessary) ..	505
39.4. Configuring The Kernel	506
39.5. Saving, Reusing your Kernel Configuration Files	507
39.6. Compiling Kernel and Modules, Installing the Beast ..	508
39.7. Installing the New Kernel Manually	509
A. The GNU General Public License	517
A.1. Preamble	517
A.2. Terms and conditions for copying, distribution and modification	518
B. Glossary	525
Index	551