

Linux Pocket Guide 3e

Carries readers from the beginning through the proficient stages of learning the GNU Emacs editor, covering everything from simple text editing to moderately complicated customization and programming. Original. (Advanced).

If you're a Unix system administrator, then the information you need every day just to get your job done could fill a book--a very large book. But, practically speaking, you don't want to stop and thumb through a weighty volume each time a problem arises. Your answer is the Essential System Administration Pocket Reference, the only system administration reference that fits in your pocket. Concise and easy-to-use, this little book is the portable companion to the classic Essential System Administration by Aileen Frisch. The Essential System Administration Pocket Reference is a quick reference to all the fundamental and essential tasks required to run such divergent Unix systems as Solaris, Linux, AIX, BSD, SuSe, Red Hat, and more. Beginners and experienced administrators alike will quickly be able to apply its principles and advice to solve everyday problems. The book is divided into three parts: Commands, Syntax and Their Applications, Configuration Files and Formats, and Operating System Specific Information. The information in this book is a must-have for any administrator or user of a Unix system. O'Reilly's Pocket References have become a favorite among technology professionals everywhere. By providing a wealth of important details in a concise, well-organized format, these handy books deliver just what you need to complete the task at hand. When you've reached a sticking point and need to get to a solution quickly, the new Essential System Administration Pocket Reference is the book you'll want to have.

Used both as a pedagogical tool and a reference. This work is used for any introductory programming course that includes Unix and for advanced courses such as those on Operating Systems and System Administration. It contains over 900 exercises and self-test questions. This book also features coverage of Linux, where Linux differs from UNIX.

If you use Linux in your day-to-day work, this popular pocket guide is the perfect on-the-job reference. The third edition features new commands for processing image files and audio files, running and killing programs, reading and modifying the system clipboard, and manipulating PDF files, as well as other commands requested by readers. You'll also find powerful command-line idioms you might not be familiar with, such as process substitution and piping into bash. Linux Pocket Guide provides an organized learning path to help you gain mastery of the most useful and important commands. Whether you're a novice who needs to get up to speed on Linux or an experienced user who wants a concise and functional reference, this guide provides quick answers. Selected topics include: The filesystem and shell File creation and editing Text manipulation and pipelines Backups and remote storage Viewing and controlling processes User account management Becoming the superuser Network connections Audio and video

Installing software Programming with shell scripts

UNIX, UNIX LINUX & UNIX TCL/TK. Write software that makes the most effective use of the Linux system, including the kernel and core system libraries. The majority of both Unix and Linux code is still written at the system level, and this book helps you focus on everything above the kernel, where applications such as Apache, bash, cp, vim, Emacs, gcc, gdb, glibc, ls, mv, and X exist. Written primarily for engineers looking to program at the low level, this updated edition of Linux System Programming gives you an understanding of core internals that makes for better code, no matter where it appears in the stack. -- Provided by publisher.

This introduction to networking on Linux now covers firewalls, including the use of ipchains and Netfilter, masquerading, and accounting. Other new topics in this second edition include Novell (NCP/IPX) support and INN (news administration). Provides information on writing a driver in Linux, covering such topics as character devices, network interfaces, driver debugging, concurrency, and interrupts.

By its very nature, Unix is a " power tools " environment. Even beginning Unix users quickly grasp that immense power exists in shell programming, aliases and history mechanisms, and various editing tools. Nonetheless, few users ever really master the power available to them with Unix. There is just too much to learn! Unix Power Tools, Third Edition, literally contains thousands of tips, scripts, and techniques that make using Unix easier, more effective, and even more fun. This book is organized into hundreds of short articles with plenty of references to other sections that keep you flipping from new article to new article. You'll find the book hard to put down as you uncover one interesting tip after another. With the growing popularity of Linux and the advent of Mac OS X, Unix has metamorphosed into something new and exciting. With Unix no longer perceived as a difficult operating system, more and more users are discovering its advantages for the first time. The latest edition of this best-selling favorite is loaded with advice about almost every aspect of Unix, covering all the new technologies that users need to know. In addition to vital information on Linux, Mac OS X, and BSD, Unix Power Tools, Third Edition, now offers more coverage of bcash, zsh, and new shells, along with discussions about modern utilities and applications. Several sections focus on security and Internet access, and there is a new chapter on access to Unix from Windows, addressing the heterogeneous nature of systems today. You'll also find expanded coverage of software installation and packaging, as well as basic information on Perl and Python. The book's accompanying web site provides some of the best software available to Unix users, which you can download and add to your own set of power tools. Whether you are a newcomer or a Unix power user, you'll find yourself thumbing through the gold mine of information in this new edition of Unix Power Tools to add to your store of knowledge. Want to try something new? Check this book first, and you're sure to find a tip or trick that will prevent you from learning things

the hard way.

CompTIA Authorized Linux+ prep CompTIA Linux+ Study Guide is your comprehensive study guide for the Linux+ Powered by LPI certification exams. With complete coverage of 100% of the objectives on both exam LX0-103 and exam LX0-104, this study guide provides clear, concise information on all aspects of Linux administration, with a focus on the latest version of the exam. You'll gain the insight of examples drawn from real-world scenarios, with detailed guidance and authoritative coverage of key topics, including GNU and Unix commands, system operation, system administration, system services, security, and more, from a practical perspective that easily translates into on-the-job know-how. You'll also get access to helpful study tools, including bonus practice exams, electronic flashcards, and a searchable glossary of key terms that are important to know for exam day. Linux is viewed by many companies and organizations as an excellent, low-cost, secure alternative to expensive operating systems such as Microsoft Windows. The CompTIA Linux+ Powered by LPI exams test a candidate's understanding and familiarity with the Linux Kernel. Review the basic system architecture, installation, and management Understand commands, devices, and file systems Utilize shells, scripting, and data management techniques Navigate user interfaces, desktops, and essential system services As the Linux server market share continue to grow, so too does the demand for qualified and certified Linux administrators. Certification holders must recertify every five years, but LPI recommends recertifying every two years to stay fully up to date with new technologies and best practices. CompTIA Linux+ Study Guide gives you the advantage of exam day confidence.

Linux Pocket Guide is organized the way you use Linux: by function, not just alphabetically. It's not the 'bible of Linux; it's a practical and concise guide to the options and commands you need most. It starts with general concepts like files and directories, the shell, and X windows, and then presents detailed overviews of the most essential commands, with clear examples. You'll learn each command's purpose, usage, options, location on disk, and even the RPM package that installed it.

Are you serious about network security? Then check out SSH, the Secure Shell, which provides key-based authentication and transparent encryption for your network connections. It's reliable, robust, and reasonably easy to use, and both free and commercial implementations are widely available for most operating systems. While it doesn't solve every privacy and security problem, SSH eliminates several of them very effectively. Everything you want to know about SSH is in our second edition of SSH, *The Secure Shell: The Definitive Guide*. This updated book thoroughly covers the latest SSH-2 protocol for system administrators and end users interested in using this increasingly popular TCP/IP-based solution. How does it work? Whenever data is sent to the network, SSH automatically encrypts it. When data reaches its intended recipient, SSH decrypts it. The result is "transparent" encryption-users can work normally, unaware that their communications are already encrypted. SSH supports secure file transfer between computers, secure remote logins, and a unique "tunneling" capability that adds encryption to otherwise insecure network applications. With SSH, users can freely navigate the Internet, and system administrators can secure their networks or perform remote administration. Written for a wide, technical audience, *SSH, The Secure Shell: The Definitive Guide* covers several implementations of SSH for different

operating systems and computing environments. Whether you're an individual running Linux machines at home, a corporate network administrator with thousands of users, or a PC/Mac owner who just wants a secure way to telnet or transfer files between machines, our indispensable guide has you covered. It starts with simple installation and use of SSH, and works its way to in-depth case studies on large, sensitive computer networks. No matter where or how you're shipping information, SSH, The Secure Shell: The Definitive Guide will show you how to do it securely.

This updated reference offers a clear description of make, a central engine in many programming projects that simplifies the process of re-linking a program after re-compiling source files. Original. (Intermediate)

Linux Pocket Guide Essential Commands"O'Reilly Media, Inc."

O'Reilly's Pocket Guides have earned a reputation as inexpensive, comprehensive, and compact guides that have the stuff but not the fluff. Every page of Linux Pocket Guide lives up to this billing. It clearly explains how to get up to speed quickly on day-to-day Linux use. Once you're up and running, Linux Pocket Guide provides an easy-to-use reference that you can keep by your keyboard for those times when you want a fast, useful answer, not hours in the man pages. Linux Pocket Guide is organized the way you use Linux: by function, not just alphabetically. It's not the 'bible of Linux'; it's a practical and concise guide to the options and commands you need most. It starts with general concepts like files and directories, the shell, and X windows, and then presents detailed overviews of the most essential commands, with clear examples. You'll learn each command's purpose, usage, options, location on disk, and even the RPM package that installed it. The Linux Pocket Guide is tailored to Fedora Linux--the latest spin-off of Red Hat Linux--but most of the information applies to any Linux system. Throw in a host of valuable power user tips and a friendly and accessible style, and you'll quickly find this practical, to-the-point book a small but mighty resource for Linux users.

The revision of the definitive guide to Unix system programming is now available in a more portable format.

You've experienced the shiny, point-and-click surface of your Linux computer—now dive below and explore its depths with the power of the command line. The Linux Command Line takes you from your very first terminal keystrokes to writing full programs in Bash, the most popular Linux shell. Along the way you'll learn the timeless skills handed down by generations of gray-bearded, mouse-shunning gurus: file navigation, environment configuration, command chaining, pattern matching with regular expressions, and more. In addition to that practical knowledge, author William Shotts reveals the philosophy behind these tools and the rich heritage that your desktop Linux machine has inherited from Unix supercomputers of yore. As you make your way through the book's short, easily-digestible chapters, you'll learn how to:

- * Create and delete files, directories, and symlinks
- * Administer your system, including networking, package installation, and process management
- * Use standard input and output, redirection, and pipelines
- * Edit files with Vi, the world's most popular text editor
- * Write shell scripts to automate common or boring tasks
- * Slice and dice text files with cut, paste, grep, patch, and sed

Once you overcome your initial "shell shock," you'll find that the command line is a natural and expressive way to communicate with your computer. Just don't be surprised if your mouse starts to gather dust. A featured resource in the Linux Foundation's

"Evolution of a SysAdmin"

Unlike some operating systems, Linux doesn't try to hide the important bits from you—it gives you full control of your computer. But to truly master Linux, you need to understand its internals, like how the system boots, how networking works, and what the kernel actually does. In this completely revised second edition of the perennial best seller *How Linux Works*, author Brian Ward makes the concepts behind Linux internals accessible to anyone curious about the inner workings of the operating system. Inside, you'll find the kind of knowledge that normally comes from years of experience doing things the hard way. You'll learn: –How Linux boots, from boot loaders to init implementations (systemd, Upstart, and System V) –How the kernel manages devices, device drivers, and processes –How networking, interfaces, firewalls, and servers work –How development tools work and relate to shared libraries –How to write effective shell scripts You'll also explore the kernel and examine key system tasks inside user space, including system calls, input and output, and filesystems. With its combination of background, theory, real-world examples, and patient explanations, *How Linux Works* will teach you what you need to know to solve pesky problems and take control of your operating system.

While Mac OS X garners all the praise from pundits, and Windows XP attracts all the viruses, Linux is quietly being installed on millions of desktops every year. For programmers and system administrators, business users, and educators, desktop Linux is a breath of fresh air and a needed alternative to other operating systems. The *Linux Desktop Pocket Guide* is your introduction to using Linux on five of the most popular distributions: Fedora, Gentoo, Mandriva, SUSE, and Ubuntu. Despite what you may have heard, using Linux is not all that hard. Firefox and Konqueror can handle all your web browsing needs; GAIM and Kopete allow you to chat with your friends on the AOL, MSN, and Yahoo! networks; and the email programs Evolution and Kontact provide the same functionality as Microsoft Outlook, with none of the cost. All of these programs run within the beautiful, feature-packed, and easy-to-use GNOME or KDE desktop environments. No operating system truly "just works," and Linux is no exception. Although Linux is capable of running on most any computing hardware that Microsoft Windows can use, you sometimes need to tweak it just a little to make it work the way you really want. To help you with this task, *Linux Desktop Pocket Guide* covers essential topics, such as configuring your video card, screen resolution, sound, and wireless networking. And laptop users are not left out—an entire section is devoted to the laptop issues of battery life, sleep, and hibernate modes.

O'Reilly's bestselling book on Linux's bash shell is at it again. Now that Linux is an established player both as a server and on the desktop *Learning the bash Shell* has been updated and refreshed to account for all the latest changes. Indeed, this third edition serves as the most valuable guide yet to the bash shell. As any good programmer knows, the first thing users of the Linux operating system come face to face with is the shell the UNIX term for a user interface to the system. In other words, it's what lets you communicate with the computer via the keyboard and display. Mastering the bash shell might sound fairly simple but it isn't. In truth, there are many complexities that need careful explanation, which is just what *Learning the bash Shell* provides. If you are new to shell programming, the book provides an excellent introduction, covering everything from the most basic to the most advanced features.

And if you've been writing shell scripts for years, it offers a great way to find out what the new shell offers. Learning the bash Shell is also full of practical examples of shell commands and programs that will make everyday use of Linux that much easier. With this book, programmers will learn: How to install bash as your login shell The basics of interactive shell use, including UNIX file and directory structures, standard I/O, and background jobs Command line editing, history substitution, and key bindings How to customize your shell environment without programming The nuts and bolts of basic shell programming, flow control structures, command-line options and typed variables Process handling, from job control to processes, coroutines and subshells Debugging techniques, such as trace and verbose modes Techniques for implementing system-wide shell customization and features related to system security

Your one-stop guide to Linux--fully revised and expanded Get in-depth coverage of all Linux features, tools, and utilities from this thoroughly updated and comprehensive resource, designed for all Linux distributions. Written by Linux expert Richard Petersen, this book explains how to get up-and-running on Linux, use the desktops and shells, manage applications, deploy servers, implement security measures, and handle system and network administration tasks. With full coverage of the latest platform, Linux: The Complete Reference, Sixth Edition includes details on the very different and popular Debian (Ubuntu) and Red Hat/Fedora software installation and service management tools used by most distributions. This is a must-have guide for all Linux users. Install, configure, and administer any Linux distribution Work with files and folders from the BASH, TCSH, and Z shells Use the GNOME and KDE desktops, X Windows, and display managers Set up office, database, Internet, and multimedia applications Secure data using SELinux, netfilter, SSH, and Kerberos Encrypt network transmissions with GPG, LUKS, and IPsec Deploy FTP, Web, mail, proxy, print, news, and database servers Administer system resources using HAL, udev, and virtualization (KVM and Xen) Configure and maintain IPv6, DHCPv6, NIS, networking, and remote access Access remote files and devices using NFSv4, GFS, PVFS, NIS, and SAMBA

If you use Linux in your day-to-day work, this popular pocket guide is the perfect on-the-job reference. The third edition features new commands for processing image files and audio files, running and killing programs, reading and modifying the system clipboard, and manipulating PDF files, as well as other commands requested by readers. You'll also find powerful command-line idioms you might not be familiar with, such as process substitution and piping into bash. Linux Pocket Guide provides an organized learning path to help you gain mastery of the most useful and important commands.

LINUX+ GUIDE TO LINUX CERTIFICATION, THIRD EDITION offers the most up-to-date information to empower users to successfully pass CompTIA's Linux+ (Powered by LPI) Certification exam, while maintaining a focus on quality, classroom usability, and real-world experience. This complete guide provides not only the conceptual knowledge, but also the hands-on skills necessary to work with the Linux operation systems in a network administration environment. Comprehensive coverage includes updated information pertinent to the latest Linux distributions, as well as new storage technologies such as LVM and ext4. Readers will learn about new and expanded material on key job-related networking services including FTP, NFS, Samba, Apache, DNS, DHCP, NTP, RADIUS, LDAP, Squid, Sendmail, Postfix, X, SSH, VNC, SQL, and updated information on security practices and technologies. The Hands-On Projects

help learners practice new skills, and review questions and key terms reinforce important concepts. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Updated for both Python 3.4 and 2.7, this convenient pocket guide is the perfect on-the-job quick reference. You'll find concise, need-to-know information on Python types and statements, special method names, built-in functions and exceptions, commonly used standard library modules, and other prominent Python tools. The handy index lets you pinpoint exactly what you need. Written by Mark Lutz—widely recognized as the world's leading Python trainer—Python Pocket Reference is an ideal companion to O'Reilly's classic Python tutorials, *Learning Python* and *Programming Python*, also written by Mark. This fifth edition covers:

- Built-in object types, including numbers, lists, dictionaries, and more
- Statements and syntax for creating and processing objects
- Functions and modules for structuring and reusing code
- Python's object-oriented programming tools
- Built-in functions, exceptions, and attributes
- Special operator overloading methods
- Widely used standard library modules and extensions
- Command-line options and development tools
- Python idioms and hints
- The Python SQL Database API

Unlock the secrets of the Terminal and discover how this powerful tool solves problems the Finder can't handle. With this handy guide, you'll learn commands for a variety of tasks, such as killing programs that refuse to quit, renaming a large batch of files in seconds, or running jobs in the background while you do other work. Get started with an easy-to-understand overview of the Terminal and its partner, the shell. Then dive into commands neatly arranged into two dozen categories, including directory operations, file comparisons, and network connections. Each command includes a concise description of its purpose and features. Log into your Mac from remote locations Search and modify files in powerful ways Schedule jobs for particular days and times Let several people use one Mac at the same time Compress and uncompress files in a variety of formats View and manipulate Mac OS X processes Combine multiple commands to perform complex operations Download and install additional commands from the Internet

To thoroughly understand what makes Linux tick and why it's so efficient, you need to delve deep into the heart of the operating system--into the Linux kernel itself. The kernel is Linux--in the case of the Linux operating system, it's the only bit of software to which the term "Linux" applies. The kernel handles all the requests or completed I/O operations and determines which programs will share its processing time, and in what order. Responsible for the sophisticated memory management of the whole system, the Linux kernel is the force behind the legendary Linux efficiency. The new edition of *Understanding the Linux Kernel* takes you on a guided tour through the most significant data structures, many algorithms, and programming tricks used in the kernel. Probing beyond the superficial features, the authors offer valuable insights to people who want to know how things really work inside their machine. Relevant segments of code are dissected and discussed line by line. The book covers more than just the functioning of the code, it explains the theoretical underpinnings for why Linux does things the way it does. The new edition of the book has been updated to cover version 2.4 of the kernel, which is quite different from version 2.2: the virtual memory system is entirely new, support for multiprocessor systems is improved, and whole new classes of hardware

devices have been added. The authors explore each new feature in detail. Other topics in the book include: Memory management including file buffering, process swapping, and Direct memory Access (DMA) The Virtual Filesystem and the Second Extended Filesystem Process creation and scheduling Signals, interrupts, and the essential interfaces to device drivers Timing Synchronization in the kernel Interprocess Communication (IPC) Program execution Understanding the Linux Kernel, Second Edition will acquaint you with all the inner workings of Linux, but is more than just an academic exercise. You'll learn what conditions bring out Linux's best performance, and you'll see how it meets the challenge of providing good system response during process scheduling, file access, and memory management in a wide variety of environments. If knowledge is power, then this book will help you make the most of your Linux system.

Linux® is being adopted by an increasing number of embedded systems developers, who have been won over by its sophisticated scheduling and networking, its cost-free license, its open development model, and the support offered by rich and powerful programming tools. While there is a great deal of hype surrounding the use of Linux in embedded systems, there is not a lot of practical information. Building Embedded Linux Systems is the first in-depth, hard-core guide to putting together an embedded system based on the Linux kernel. This indispensable book features arcane and previously undocumented procedures for: Building your own GNU development toolchain Using an efficient embedded development framework Selecting, configuring, building, and installing a target-specific kernel Creating a complete target root filesystem Setting up, manipulating, and using solid-state storage devices Installing and configuring a bootloader for the target Cross-compiling a slew of utilities and packages Debugging your embedded system using a plethora of tools and techniques Details are provided for various target architectures and hardware configurations, including a thorough review of Linux's support for embedded hardware. All explanations rely on the use of open source and free software packages. By presenting how to build the operating system components from pristine sources and how to find more documentation or help, this book greatly simplifies the task of keeping complete control over one's embedded operating system, whether it be for technical or sound financial reasons. Author Karim Yaghmour, a well-known designer and speaker who is responsible for the Linux Trace Toolkit, starts by discussing the strengths and weaknesses of Linux as an embedded operating system. Licensing issues are included, followed by a discussion of the basics of building embedded Linux systems. The configuration, setup, and use of over forty different open source and free software packages commonly used in embedded Linux systems are also covered. uClibc, BusyBox, U-Boot, OpenSSH, tftpd, tftp, strace, and gdb are among the packages discussed.

It's simple: if you want to interact deeply with Mac OS X, Linux, and other Unix-like systems, you need to know how to work with the Bash shell. This concise little book puts all of the essential information about Bash right at your fingertips. You'll quickly find answers to the annoying questions that generally come up when you're writing shell scripts: What characters do you need to quote? How do you get variable substitution to do exactly what you want? How do you use arrays? Updated for Bash version 4.4, this book has the answers to these and other problems in a format that makes browsing quick and easy. Topics include: Invoking the shell Syntax Functions

and variables Arithmetic expressions Command history Programmable completion Job control Shell options Command execution Coprocesses Restricted shells Built-in commands

Many Linux and Unix developers are familiar with the GNU debugger (GDB), the invaluable open source tool for testing, fixing, and retesting software. And since GDB can be ported to Windows, Microsoft developers and others who use this platform can also take advantage of this amazing free software that allows you to see exactly what's going on inside of a program as it's executing. This new pocket guide gives you a convenient quick reference for using the debugger with several different programming languages, including C, C++, Java, Fortran and Assembly. The GNU debugger is the most useful tool during the testing phase of the software development cycle because it helps you catch bugs in the act. You can see what a program was doing at the moment it crashed, and then readily pinpoint and correct problem code. With the GDB Pocket Reference on hand, the process is quick and painless. The book covers the essentials of using GDB in a testing environment, including how to specify a target for debugging and how to make a program stop on specified conditions. This handy guide also provides details on using the debugger to examine the stack, source files and data to find the cause of program failure-and then explains ways to use GDB to make quick changes to the program for further testing and debugging. The ability to spot a bug in real time with GDB can save you hours of frustration, and having a quick way to refer to GDB's essential functions is key to making the process work. Once you get your hands on the GDB Pocket Reference, you'll never let go!

C++ is a complex language with many subtle facets. This is especially true when it comes to object-oriented and template programming. The C++ Pocket Reference is a memory aid for C++ programmers, enabling them to quickly look up usage and syntax for unfamiliar and infrequently used aspects of the language. The book's small size makes it easy to carry about, ensuring that it will always be at-hand when needed. Programmers will also appreciate the book's brevity; as much information as possible has been crammed into its small pages. In the C++ Pocket Reference, you will find:

- Information on C++ types and type conversions
- Syntax for C++ statements and preprocessor directives
- Help declaring and defining classes, and managing inheritance
- Information on declarations, storage classes, arrays, pointers, strings, and expressions
- Refreshers on key concepts of C++ such as namespaces and scope

More! C++ Pocket Reference is useful to Java and C programmers making the transition to C++, or who find themselves occasionally programming in C++. The three languages are often confusingly similar. This book enables programmers familiar with C or Java to quickly come up to speed on how a particular construct or concept is implemented in C++. Together with its companion STL Pocket Reference, the C++ Pocket Reference forms one of the most concise, easily-carried, quick-references to the C++ language available.

Equip today's users with the most up-to-date information to pass CompTIA's Linux+ (Powered by LPI) Certification exam successfully and excel when using Linux in the business world with Eckert's LINUX+ GUIDE TO LINUX CERTIFICATION, 4E. This complete guide provides a solid conceptual foundation and mastery of the hands-on skills necessary to work with the Linux operation system in today's network administration environment. The author does an exceptional job of maintaining a focus

on quality and providing classroom usability while highlighting valuable real-world experiences. This edition's comprehensive coverage emphasizes updated information on the latest Linux distributions as well as storage technologies commonly used in server environments, such as LVM and ZFS. New, expanded material addresses key job-related networking services, including FTP, NFS, Samba, Apache, DNS, DHCP, NTP, Squid, Postfix, SSH, VNC, Postgresql, and iptables/firewalld. Readers study the latest information on current and emerging security practices and technologies. Hands-On Projects help learners practice new skills using both Fedora™ 20 and Ubuntu Server 14.04 Linux, while review questions and key terms reinforce important concepts. Trust LINUX+ GUIDE TO LINUX CERTIFICATION, 4E for the mastery today's users need for success on the certification exam and throughout their careers. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Best-selling guide to the inner workings of the Linux operating system with over 50,000 copies sold since its original release in 2014. Unlike some operating systems, Linux doesn't try to hide the important bits from you—it gives you full control of your computer. But to truly master Linux, you need to understand its internals, like how the system boots, how networking works, and what the kernel actually does. In this third edition of the bestselling *How Linux Works*, author Brian Ward peels back the layers of this well-loved operating system to make Linux internals accessible. This edition has been thoroughly updated and expanded with added coverage of Logical Volume Manager (LVM), virtualization, and containers. You'll learn:

- How Linux boots, from boot loaders to init (systemd)
- How the kernel manages devices, device drivers, and processes
- How networking, interfaces, firewalls, and servers work
- How development tools work and relate to shared libraries
- How to write effective shell scripts

You'll also explore the kernel and examine key system tasks inside user space, including system calls, input and output, and filesystems. With its combination of background, theory, real-world examples, and patient explanations, *How Linux Works*, 3rd edition will teach you what you need to know to solve pesky problems and take control of your operating system.

Describes the concepts of programming with Linux, covering such topics as shell programming, file structure, managing memory, using MySQL, debugging, processes and signals, and GNOME.

Get complete instructions for manipulating, processing, cleaning, and crunching datasets in Python. Updated for Python 3.6, the second edition of this hands-on guide is packed with practical case studies that show you how to solve a broad set of data analysis problems effectively. You'll learn the latest versions of pandas, NumPy, IPython, and Jupyter in the process. Written by Wes McKinney, the creator of the Python pandas project, this book is a practical, modern introduction to data science tools in Python. It's ideal for analysts new to Python and for Python programmers new to data science and scientific computing. Data files and related material are available on GitHub. Use the IPython shell and Jupyter notebook for exploratory computing

Learn basic and advanced features in NumPy (Numerical Python) Get started with data analysis tools in the pandas library Use flexible tools to load, clean, transform, merge, and reshape data Create informative visualizations with matplotlib Apply the pandas groupby facility to slice, dice, and summarize datasets Analyze and manipulate regular and irregular time series data Learn how to solve real-world data analysis problems with thorough, detailed examples

Advance your understanding of the Linux command line with this invaluable resource Linux Command Line and Shell Scripting Bible, 4th Edition is the newest installment in the indispensable series known to Linux developers all over the world. Packed with concrete strategies and practical tips, the latest edition includes brand-new content covering: Understanding the Shell Writing Simple Script Utilities Producing Database, Web & Email Scripts Creating Fun Little Shell Scripts Written by accomplished Linux professionals Christine Bresnahan and Richard Blum, Linux Command Line and Shell Scripting Bible, 4th Edition teaches readers the fundamentals and advanced topics necessary for a comprehensive understanding of shell scripting in Linux. The book is filled with real-world examples and usable scripts, helping readers navigate the challenging Linux environment with ease and convenience. The book is perfect for anyone who uses Linux at home or in the office and will quickly find a place on every Linux enthusiast's bookshelf.

You may be contemplating your first Linux installation. Or you may have been using Linux for years and need to know more about adding a network printer or setting up an FTP server. Running Linux, now in its fifth edition, is the book you'll want on hand in either case. Widely recognized in the Linux community as the ultimate getting-started and problem-solving book, it answers the questions and tackles the configuration issues that frequently plague users, but are seldom addressed in other books. This fifth edition of Running Linux is greatly expanded, reflecting the maturity of the operating system and the teeming wealth of software available for it. Hot consumer topics such as audio and video playback applications, groupware functionality, and spam filtering are covered, along with the basics in configuration and management that always have made the book popular. Running Linux covers basic communications such as mail, web surfing, and instant messaging, but also delves into the subtleties of network configuration--including dial-up, ADSL, and cable modems--in case you need to set up your network manually. The book can make you proficient on office suites and personal productivity applications--and also tells you what programming tools are available if you're interested in contributing to these applications. Other new topics in the fifth edition include encrypted email and filesystems, advanced shell techniques, and remote login applications. Classic discussions on booting, package management, kernel recompilation, and X configuration have also been updated. The authors of Running Linux have anticipated problem areas, selected stable and popular solutions, and provided clear instructions to ensure that you'll have a satisfying experience using Linux. The discussion is direct and complete enough to guide novice users, while still providing the additional information experienced users will need to progress in their mastery of Linux. Whether you're using Linux on a home workstation or maintaining a network server, Running Linux will provide expert advice just when you need it.

Ubuntu Server is a complete, free server operating system that just works, with the extra Ubuntu polish, innovation, and simplicity that administrators love. Now, there's a definitive, authoritative guide to getting up-and-running quickly with the newest, most powerful versions of Ubuntu Server. Written by leading members of the Ubuntu community, The Official Ubuntu Server Book covers all you need to know to make the most of Ubuntu Server, whether you're a beginner or a battle-hardened senior system administrator. The authors cover Ubuntu Server from start to finish: installation, basic administration and monitoring, security, backup, troubleshooting, system rescue, and much more. They walk through deploying each of the most common server applications, from file and print services to state-of-the-art, cost-saving virtualization. In addition, you'll learn how to Make the most of Ubuntu Server's latest, most powerful technologies Discover easy, fast ways to perform key administration tasks Automate Ubuntu installs, no matter how many servers you're installing Quickly set up low-cost web servers and email Protect your server with Ubuntu's built-in and optional security tools Minimize downtime with fault tolerance and clustering Master proven, step-by-step server and network troubleshooting techniques Walk through rescuing an Ubuntu server that won't boot

This pocket guide presents the most crucial information about SQL in a compact and easily accessible format, covering the four commonly used SQL variants--Oracle, IBM DB2, Microsoft SQL Server, and MySQL. Topics include: Data manipulation statements (SELECT, DELETE, INSERT, UPDATE, MERGE) and transaction control statements (START TRANSACTION, SAVEPOINT, COMMIT, ROLLBACK). Common SQL functions (date, numeric, math, trigonometric, string, conversion, aggregate) Such topics as literals, NULLs, CASE expressions, datatype conversion, regular expressions, grouping and summarizing data, joining tables, and writing queries (hierarchical, recursive, union, flashback) and subqueries. Instead of presenting complex and confusing syntax diagrams, the book teaches by example, showing the SQL statements and options that readers are most like to use. All example data is available on the O'Reilly web site. "If you need fast, accurate SQL information, with examples for multiple database engines, be sure to check out this book."--Chris Kempster, Senior DBA and author of SQL Server 2000 for the Oracle DBA, www.chriskempster.com

Over the last few years, Linux has grown both as an operating system and a tool for personal and business use. Simultaneously becoming more user friendly and more powerful as a back-end system, Linux has achieved new plateaus: the newer filesystems have solidified, new commands and tools have appeared and become standard, and the desktop--including new desktop environments--have proved to be viable, stable, and readily accessible to even those who don't consider themselves computer gurus. Whether you're using Linux for personal software projects, for a small office or home office (often termed the SOHO environment), to provide services to a small group of colleagues, or to administer a site responsible for millions of email and web connections each day, you need quick access to information on a wide range of tools. This book covers all aspects of administering and making effective use of Linux systems. Among its topics are booting, package management, and revision control. But foremost in Linux in a Nutshell are the utilities and commands that make Linux one of the most powerful and flexible systems available. Now in its fifth edition, Linux in a Nutshell brings users up-to-date with the current state of Linux. Considered by many to be the most complete and authoritative command reference for Linux available, the book covers all substantial user, programming, administration, and networking commands for the most common Linux distributions. Comprehensive but concise, the fifth edition has been updated to cover new features of major Linux distributions. Configuration information for the rapidly growing commercial network services and community update services is one of the subjects covered for the first time. But that's just the beginning. The book covers editors, shells, and LILO and GRUB boot options. There's also coverage of Apache, Samba, Postfix, sendmail, CVS, Subversion, Emacs, vi, sed, gawk, and much more. Everything that system administrators, developers, and power users need to know about Linux is referenced here, and they will turn to this book again and again.

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