

Linux And The Unix Philosophy

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Linux and the Unix Philosophy
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The Design of the UNIX Operating System
Linux Essentials
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The Cathedral & the Bazaar
The UNIX Philosophy
Ubuntu: Up and Running
Official Ubuntu Book
Advanced Linux Programming
Just for Fun
Mastering Embedded Linux Programming
A Quarter Century of UNIX
The Linux Philosophy for SysAdmins
Fedora Linux
Understanding Unix/Linux Programming
UNIX and Linux System Administration Handbook
Beginning Linux Programming
Using and Administering Linux: Volume 1
The UNIX-haters Handbook

Systems Programming in Unix/Linux

The Definitive UNIX Resource--Fully Updated Get cutting-edge coverage of the newest releases of UNIX--including Solaris 10, all Linux distributions, HP-UX, AIX, and FreeBSD--from this thoroughly revised, one-stop resource for users at all experience levels. Written by UNIX experts with many years of experience starting with Bell Laboratories, UNIX: The Complete Reference, Second Edition provides step-by-step instructions on how to use UNIX and take advantage of its powerful tools and utilities. Get up-and-running on UNIX quickly, use the command shell and desktop, and access the Internet and e-mail. You'll also learn to administer systems and networks, develop applications, and secure your UNIX environment. Up-to-date chapters on UNIX desktops, Samba, Python, Java Apache, and UNIX Web development are included. Install, configure, and maintain UNIX on your PC or workstation Work with files, directories, commands, and the UNIX shell Create and modify text files using powerful text editors Use UNIX desktops, including GNOME, CDE, and KDE, as an end user or system administrator Use and manage e-mail, TCP/IP networking, and Internet services Protect and maintain the security of your UNIX system and network Share devices, printers, and files between Windows and UNIX systems Use powerful UNIX tools, including awk, sed, and grep Develop your own shell, Python, and Perl scripts, and Java, C, and C++ programs under UNIX Set up Apache Web servers and develop browser-independent Web sites and applications

UNIX System Administration Handbook

Covering all the essential components of Unix/Linux, including process management, concurrent programming, timer and time service, file systems and network programming, this textbook emphasizes programming practice in the Unix/Linux environment. Systems Programming in Unix/Linux is intended as a textbook for systems programming courses in technically-oriented Computer

Science/Engineering curricula that emphasize both theory and programming practice. The book contains many detailed working example programs with complete source code. It is also suitable for self-study by advanced programmers and computer enthusiasts. Systems programming is an indispensable part of Computer Science/Engineering education. After taking an introductory programming course, this book is meant to further knowledge by detailing how dynamic data structures are used in practice, using programming exercises and programming projects on such topics as C structures, pointers, link lists and trees. This book provides a wide range of knowledge about computer system software and advanced programming skills, allowing readers to interface with operating system kernel, make efficient use of system resources and develop application software. It also prepares readers with the needed background to pursue advanced studies in Computer Science/Engineering, such as operating systems, embedded systems, database systems, data mining, artificial intelligence, computer networks, network security, distributed and parallel computing.

Computational Biology

All Your Unix Questions—Answered! Mastering Unix is your source for everything you need to know about today's most influential operating system. Inside, two Unix experts provide essential information on a wide range of Unix flavors, concentrating on Linux, FreeBSD, and Solaris 8. Whether you're just getting started with Unix or want a resource to help you handle system administration's toughest chores, this example-filled book will answer all your questions and promote the skills you need to succeed. Coverage includes: Using the Unix shell Using X- Windows Configuring and using remote services Connecting to the Internet Creating user accounts Creating user groups Designing and building a network Using Unix utilities Programming the shell Setting up and administering a mail server Setting up and administering a news server Setting up and administering a Web server Implementing effective security practices Note: CD-ROM/DVD and other supplementary materials are not included as part of eBook file.

The Linux Command Line

Now covers Red Hat Linux! Written by Evi Nemeth, Garth Snyder, Scott Seebass, and Trent R. Hein with Adam Boggs, Rob Braun, Ned McClain, Dan Crawl, Lynda McGinley, and Todd Miller "This is not a nice, neat book for a nice, clean world. It's a nasty book for a nasty world. This is a book for the rest of us." -Eric Allman and Marshall Kirk McKusick "I am pleased to welcome Linux to the UNIX System Administration Handbook!" -Linus Torvalds, Transmeta "This book is most welcome!" -Dennis Ritchie, AT&T Bell Laboratories This new edition of the world's most comprehensive guide to UNIX system administration is an ideal tutorial for those new to administration and an invaluable reference for experienced professionals. The third edition has been expanded to include "direct from the frontlines" coverage of Red Hat Linux. UNIX System Administration Handbook describes every aspect of system administration—from basic topics to UNIX esoterica—and provides explicit coverage of four popular UNIX systems: This book stresses a practical approach to system administration. It's packed with war stories and pragmatic advice, not just theory and watered-down restatements of the manuals. Difficult subjects such as sendmail, kernel building, and DNS

configuration are tackled head-on. Examples are provided for all four versions of UNIX and are drawn from real-life systems-warts and all. "This book is where I turn first when I have system administration questions. It is truly a wonderful resource and always within reach of my terminal." -W. Richard Stevens, author of numerous books on UNIX and TCP/IP "This is a comprehensive guide to the care and feeding of UNIX systems. The authors present the facts along with seasoned advice and numerous real-world examples. Their perspective on the variations among systems is valuable for anyone who runs a heterogeneous computing facility." -Pat Parseghian, Transmeta "We noticed your book on the staff recommendations shelf at our local bookstore: 'Very clear, a masterful interpretation of the subject.' We were most impressed, until we noticed that the same staff member had also recommended Aunt Bea's Mayberry Cookbook." -Shannon Bloomstran, history teacher

Hands-On System Programming with Linux

Unlike so many books that focus on how to use Linux, Linux and the Unix Philosophy explores the "way of thinking that is Linux" and why Linux is a superior implementation of this highly capable operating system. This book is a revision and expansion of a computer science classic. Every chapter has been thoroughly updated with Linux coverage. Linux and the Unix Philosophy falls squarely between the "softer" texts on iterative software design and project management and the "how-to" technical texts. Thus far, no one has come out with a book that addresses this topic, either in the Unix space or the Linux space. Linux and the Unix Philosophy covers the same ground as the first edition, while it also presents bold new ideas about Linux and Open Source. · Concise list of philosophy tenets makes it a handy quick reference · Anecdotal examples personalize the book for the reader · Conversational style makes it easy and joyful to read

The Linux Philosophy for SysAdmins

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.

Linux and the Unix Philosophy

Reveals and illustrates the awesome power and flexibility of the command line, and the design and usage philosophies that support those traits. This understanding of how to extract the most from the Linux command line can help you become a better SysAdmin. Understand why many things in the Linux and Unix worlds are done as they are, and how to apply the Linux Philosophy to working as a SysAdmin. The original Unix/Linux Philosophy presented foundational and functional tenets - rules, guidelines, and procedural methods - that worked

well. However, it was intended for the developers of those operating systems. Although System Administrators could apply many of the tenets to their daily work, many important tenets were missing. Over the years that David Both has been working with Linux and Unix, he has formulated his own philosophy - one which applies more directly to the everyday life of the System Administrator. This book defines a philosophy, and then illuminates the practical aspects of that philosophy with real-world experiments you can perform. Inspired by David's real mentors, and dedicated to them, *The Linux Philosophy for System Administrators* is a mentor to SysAdmins everywhere; remember - "If you fail you learn." What You Will Learn Apply the Linux philosophy to working as a SysAdmin Unlock the power of the knowledge you already have Fully understand and access the vast power of the command line Review the power of Linux as a function of the philosophies that built it Who This Book Is For If you want to learn the secrets that make the best Linux SysAdmins powerful far beyond that of mere mortals; if you want to understand the concepts that unlock those secrets; if you want to be the SysAdmin that everyone else turns to when the bytes hit the fan - then this book is for you.

The Art of UNIX Programming

Based on interviews with the key software engineers who invented and built the powerful UNIX operating system, this book provides unique insight into the operating system that dominates the modern computing environment. Originating from a small project in a backroom at AT &T Bell Labs, UNIX has grown to be a dominant operating system in the commercial computing world -the operating system responsible for the development of the C programming language and the modern networked environment. Peter Salus is a longtime and well-recognized promoter and spokesman for UNIX and the UNIX community.

Mastering Linux

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"

Mastering Modern Linux

Praise for the First Edition: "This outstanding book gives the reader robust concepts and implementable knowledge of this environment. Graphical user interface (GUI)-based users and developers do not get short shrift, despite the command-line interface's (CLI) full-power treatment. Every programmer should read the introduction's Unix/Linux philosophy section. This authoritative and exceptionally well-constructed book has my highest recommendation. It will repay careful and recursive study." --Computing Reviews, August 2011

Mastering Modern Linux, Second Edition retains much of the good material from the previous edition, with extensive updates and new topics added. The book provides a comprehensive and up-to-date guide to Linux concepts, usage, and programming. The text helps the reader master Linux with a well-selected set of topics, and encourages hands-on practice. The first part of the textbook covers interactive use of Linux via the Graphical User Interface (GUI) and the Command-Line Interface (CLI), including comprehensive treatment of the Gnome desktop and the Bash Shell. Using different apps, commands and filters, building pipelines, and matching patterns with regular expressions are major focuses. Next comes Bash scripting, file system structure, organization, and usage. The following chapters present networking, the Internet and the Web, data encryption, basic system admin, as well as Web hosting. The Linux Apache MySQL/MariaDB PHP (LAMP) Web hosting combination is also presented in depth. In the last part of the book, attention is turned to C-level programming. Topics covered include the C compiler, preprocessor, debugger, I/O, file manipulation, process control, inter-process communication, and networking. The book includes many examples and complete programs ready to download and run. A summary and exercises of varying degrees of difficulty can be found at the end of each chapter. A companion website (<http://mml.sofpower.com>) provides appendices, information updates, an example code package, and other resources for instructors, as well as students.

Mastering UNIX

Reveals and illustrates the awesome power and flexibility of the command line, and the design and usage philosophies that support those traits. This understanding of how to extract the most from the Linux command line can help you become a better SysAdmin. Understand why many things in the Linux and Unix worlds are done as they are, and how to apply the Linux Philosophy to working as a SysAdmin. The original Unix/Linux Philosophy presented foundational and functional tenets - rules, guidelines, and procedural methods - that worked well. However, it was intended for the developers of those operating systems. Although System Administrators could apply many of the tenets to their daily work, many important tenets were missing. Over the years that David Both has been working with Linux and Unix, he has formulated his own philosophy - one which applies more directly to the everyday life of the System Administrator. This book defines a philosophy, and then illuminates the practical aspects of that philosophy with real-world experiments you can perform. Inspired by David's real mentors, and dedicated to them, The Linux Philosophy for System Administrators is a mentor to SysAdmins everywhere; remember - "If you fail you learn." What You Will Learn Apply the Linux philosophy to working as a SysAdmin Unlock the power of the knowledge you already have Fully understand and access the vast power of

the command line Review the power of Linux as a function of the philosophies that built it Who This Book Is For If you want to learn the secrets that make the best Linux SysAdmins powerful far beyond that of mere mortals; if you want to understand the concepts that unlock those secrets; if you want to be the SysAdmin that everyone else turns to when the bytes hit the fan - then this book is for you.

Python for Unix and Linux System Administration

"Neither a "Starting Linux" book nor a dry reference manual, this book has a lot to offer to those coming to Fedora from other operating systems or distros." -- Behdad Esfahbod, Fedora developer This book will get you up to speed quickly on Fedora Linux, a securely-designed Linux distribution that includes a massive selection of free software packages. Fedora is hardened out-of-the-box, it's easy to install, and extensively customizable - and this book shows you how to make Fedora work for you. Fedora Linux: A Complete Guide to Red Hat's Community Distribution will take you deep into essential Fedora tasks and activities by presenting them in easy-to-learn modules. From installation and configuration through advanced topics such as administration, security, and virtualization, this book captures the important details of how Fedora Core works--without the fluff that bogs down other books and help/how-to web sites. Instead, you can learn from a concise task-based approach to using Fedora as both a desktop and server operating system. In this book, you'll learn how to: Install Fedora and perform basic administrative tasks Configure the KDE and GNOME desktops Get power management working on your notebook computer and hop on a wired or wireless network Find, install, and update any of the thousands of packages available for Fedora Perform backups, increase reliability with RAID, and manage your disks with logical volumes Set up a server with file sharing, DNS, DHCP, email, a Web server, and more Work with Fedora's security features including SELinux, PAM, and Access Control Lists (ACLs) Whether you are running the stable version of Fedora Core or bleeding-edge Rawhide releases, this book has something for every level of user. The modular, lab-based approach not only shows you how things work-but also explains why--and provides you with the answers you need to get up and running with Fedora Linux. Chris Tyler is a computer consultant and a professor of computer studies at Seneca College in Toronto, Canada where he teaches courses on Linux and X Window System Administration. He has worked on systems ranging from embedded data converters to Multics mainframes.

The UNIX Programming Environment

This book describes the internal algorithms and the structures that form the basis of the UNIX operating system and their relationship to the programmer interface. The system description is based on UNIX System V Release 2 supported by AT&T, with some features from Release 3.

Shell Programming in Unix, Linux and OS X

Learning GNU Emacs

Ubuntu for everyone! This popular Linux-based operating system is perfect for people with little technical background. It's simple to install, and easy to use -- with a strong focus on security. Ubuntu: Up and Running shows you the ins and outs of this system with a complete hands-on tour. You'll learn how Ubuntu works, how to quickly configure and maintain Ubuntu 10.04, and how to use this unique operating system for networking, business, and home entertainment. This book includes a DVD with the complete Ubuntu system and several specialized editions -- including the Mythbuntu multimedia release. Choose among three desktop environments: GNOME, KDE, or XFCE Connect printers, sound cards, cameras, webcams, and iPhones Use the Linux filesystem with either the desktop or the command line Learn networking functions, such as file and folder sharing and Internet access Get an in-depth introduction to the OpenOffice.org business productivity suite Learn how to use WINE to run Windows programs Implement upgrades quickly and easily Find out where to get, and how to install, other great software for Linux

Lions' Commentary on UNIX 6th Edition with Source Code

Open Sources

Encouraging hands-on practice, Mastering Linux provides a comprehensive, up-to-date guide to Linux concepts, usage, and programming. Through a set of carefully selected topics and practical examples, the book imparts a sound understanding of operating system concepts and shows how to use Linux effectively. Ready-to-Use Examples Offer Immediate Access to Practical Applications After a primer on the fundamentals, the text covers user interfaces, commands and filters, Bash Shell scripting, the file system, networking and Internet use, and kernel system calls. It presents many examples and complete programs ready to run on your Linux system. Each chapter includes a summary and exercises of varying degrees of difficulty. Web Resource The companion website at <http://ml.sofpower.com/> offers a host of ancillary materials. Along with links to numerous resources, it includes appendices on SSH and SFTP, VIM, text editing with Vi, and the emacs editor. The site also provides a complete example code package for download. Master the Linux Operating System Toolbox This book enables you to leverage the capabilities and power of the Linux system more effectively. Going beyond this, it can help you write programs at the shell and C levels—encouraging you to build new custom tools for applications and R&D.

Running Linux

Written for both the computer layperson and the experienced programmer, this book explores the tenets of the UNIX operating system in detail, dealing with powerful concepts in a comprehensive, straightforward manner. It is a book to be read before tackling the highly technical texts on UNIX internals and programming.

Unix

The Art of UNIX Programming poses the belief that understanding the unwritten UNIX engineering tradition and mastering its design patterns will help

programmers of all stripes to become better programmers. This book attempts to capture the engineering wisdom and design philosophy of the UNIX, Linux, and Open Source software development community as it has evolved over the past three decades, and as it is applied today by the most experienced programmers. Eric Raymond offers the next generation of "hackers" the unique opportunity to learn the connection between UNIX philosophy and practice through careful case studies of the very best UNIX/Linux programs.

UNIX Power Tools

"The fascinating story of how Unix began and how it took over the world. Brian Kernighan was a member of the original group of Unix developers, the creator of several fundamental Unix programs, and the co-author of classic books like "The C Programming Language" and "The Unix Programming Environment."--

Linux System Programming

Open source provides the competitive advantage in the Internet Age. According to the August Forrester Report, 56 percent of IT managers interviewed at Global 2,500 companies are already using some type of open source software in their infrastructure and another 6 percent will install it in the next two years. This revolutionary model for collaborative software development is being embraced and studied by many of the biggest players in the high-tech industry, from Sun Microsystems to IBM to Intel. The Cathedral & the Bazaar is a must for anyone who cares about the future of the computer industry or the dynamics of the information economy. Already, billions of dollars have been made and lost based on the ideas in this book. Its conclusions will be studied, debated, and implemented for years to come. According to Bob Young, "This is Eric Raymond's great contribution to the success of the open source revolution, to the adoption of Linux-based operating systems, and to the success of open source users and the companies that supply them." The interest in open source software development has grown enormously in the past year. This revised and expanded paperback edition includes new material on open source developments in 1999 and 2000. Raymond's clear and effective writing style accurately describing the benefits of open source software has been key to its success. With major vendors creating acceptance for open source within companies, independent vendors will become the open source story in 2001.

UNIX: The Complete Reference, Second Edition

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).

The Design of the UNIX Operating System

Shell Programming in Unix, Linux and OS X is a thoroughly updated revision of Kochan and Wood's classic Unix Shell Programming tutorial. Following the methodology of the original text, the book focuses on the POSIX standard shell, and teaches you how to develop programs in this useful programming

environment, taking full advantage of the underlying power of Unix and Unix-like operating systems. After a quick review of Unix utilities, the book's authors take you step-by-step through the process of building shell scripts, debugging them, and understanding how they work within the shell's environment. All major features of the shell are covered, and the large number of practical examples make it easy for you to build shell scripts for your particular applications. The book also describes the major features of the Korn and Bash shells. Learn how to... Take advantage of the many utilities provided in the Unix system Write powerful shell scripts Use the shell's built-in decision-making and looping constructs Use the shell's powerful quoting mechanisms Make the most of the shell's built-in history and command editing capabilities Use regular expressions with Unix commands Take advantage of the special features of the Korn and Bash shells Identify the major differences between versions of the shell language Customize the way your Unix system responds to you Set up your shell environment Make use of functions Debug scripts Contents at a Glance 1 A Quick Review of the Basics 2 What Is the Shell? 3 Tools of the Trade 4 And Away We Go 5 Can I Quote You on That? 6 Passing Arguments 7 Decisions, Decisions 8 'Round and 'Round She Goes 9 Reading and Printing Data 10 Your Environment 11 More on Parameters 12 Loose Ends 13 Rolo Revisited 14 Interactive and Nonstandard Shell Features A Shell Summary B For More Information

Linux Essentials

Get up and running with system programming concepts in Linux Key Features Acquire insight on Linux system architecture and its programming interfaces Get to grips with core concepts such as process management, signalling and pthreads Packed with industry best practices and dozens of code examples Book Description The Linux OS and its embedded and server applications are critical components of today's software infrastructure in a decentralized, networked universe. The industry's demand for proficient Linux developers is only rising with time. Hands-On System Programming with Linux gives you a solid theoretical base and practical industry-relevant descriptions, and covers the Linux system programming domain. It delves into the art and science of Linux application programming— system architecture, process memory and management, signaling, timers, pthreads, and file IO. This book goes beyond the use API X to do Y approach; it explains the concepts and theories required to understand programming interfaces and design decisions, the tradeoffs made by experienced developers when using them, and the rationale behind them. Troubleshooting tips and techniques are included in the concluding chapter. By the end of this book, you will have gained essential conceptual design knowledge and hands-on experience working with Linux system programming interfaces. What you will learn Explore the theoretical underpinnings of Linux system architecture Understand why modern OSes use virtual memory and dynamic memory APIs Get to grips with dynamic memory issues and effectively debug them Learn key concepts and powerful system APIs related to process management Effectively perform file IO and use signaling and timers Deeply understand multithreading concepts, pthreads APIs, synchronization and scheduling Who this book is for Hands-On System Programming with Linux is for Linux system engineers, programmers, or anyone who wants to go beyond using an API set to understanding the theoretical underpinnings and concepts behind powerful Linux system programming APIs. To get the most out of this book, you

should be familiar with Linux at the user-level logging in, using shell via the command line interface, the ability to use tools such as find, grep, and sort. Working knowledge of the C programming language is required. No prior experience with Linux systems programming is assumed.

Linux Administration Handbook

Explains how to understand and use Linux, covering installation, system administration, configuring desktops, and networking, along with topics such as the GNOME desktop, security, package management, and sound configuration.

The Cathedral & the Bazaar

Master the techniques needed to build great, efficient embedded devices on Linux
About This Book Discover how to build and configure reliable embedded Linux devices This book has been updated to include Linux 4.9 and Yocto Project 2.2 (Morty) This comprehensive guide covers the remote update of devices in the field and power management Who This Book Is For If you are an engineer who wishes to understand and use Linux in embedded devices, this book is for you. It is also for Linux developers and system programmers who are familiar with embedded systems and want to learn and program the best in class devices. It is appropriate for students studying embedded techniques, for developers implementing embedded Linux devices, and engineers supporting existing Linux devices. What You Will Learn Evaluate the Board Support Packages offered by most manufacturers of a system on chip or embedded module Use Buildroot and the Yocto Project to create embedded Linux systems quickly and efficiently Update IoT devices in the field without compromising security Reduce the power budget of devices to make batteries last longer Interact with the hardware without having to write kernel device drivers Debug devices remotely using GDB, and see how to measure the performance of the systems using powerful tools such as perk, ftrace, and valgrind Find out how to configure Linux as a real-time operating system In Detail Embedded Linux runs many of the devices we use every day, from smart TVs to WiFi routers, test equipment to industrial controllers - all of them have Linux at their heart. Linux is a core technology in the implementation of the interconnected world of the Internet of Things. The comprehensive guide shows you the technologies and techniques required to build Linux into embedded systems. You will begin by learning about the fundamental elements that underpin all embedded Linux projects: the toolchain, the bootloader, the kernel, and the root filesystem. You'll see how to create each of these elements from scratch, and how to automate the process using Buildroot and the Yocto Project. Moving on, you'll find out how to implement an effective storage strategy for flash memory chips, and how to install updates to the device remotely once it is deployed. You'll also get to know the key aspects of writing code for embedded Linux, such as how to access hardware from applications, the implications of writing multi-threaded code, and techniques to manage memory in an efficient way. The final chapters show you how to debug your code, both in applications and in the Linux kernel, and how to profile the system so that you can look out for performance bottlenecks. By the end of the book, you will have a complete overview of the steps required to create a successful embedded Linux system. Style and approach This book is an easy-to-follow and pragmatic guide with in-depth analysis of the implementation of

embedded devices. It follows the life cycle of a project from inception through to completion, at each stage giving both the theory that underlies the topic and practical step-by-step walkthroughs of an example implementation.

The UNIX Philosophy

Python is an ideal language for solving problems, especially in Linux and Unix networks. With this pragmatic book, administrators can review various tasks that often occur in the management of these systems, and learn how Python can provide a more efficient and less painful way to handle them. Each chapter in Python for Unix and Linux System Administration presents a particular administrative issue, such as concurrency or data backup, and presents Python solutions through hands-on examples. Once you finish this book, you'll be able to develop your own set of command-line utilities with Python to tackle a wide range of problems. Discover how this language can help you: Read text files and extract information Run tasks concurrently using the threading and forking options Get information from one process to another using network facilities Create clickable GUIs to handle large and complex utilities Monitor large clusters of machines by interacting with SNMP programmatically Master the IPython Interactive Python shell to replace or augment Bash, Korn, or Z-Shell Integrate Cloud Computing into your infrastructure, and learn to write a Google App Engine Application Solve unique data backup challenges with customized scripts Interact with MySQL, SQLite, Oracle, Postgres, Django ORM, and SQLAlchemy With this book, you'll learn how to package and deploy your Python applications and libraries, and write code that runs equally well on multiple Unix platforms. You'll also learn about several Python-related technologies that will make your life much easier.

Ubuntu: Up and Running

This is the eBook version of the printed book. If the print book includes a CD-ROM, this content is not included within the eBook version. Advanced Linux Programming is divided into two parts. The first covers generic UNIX system services, but with a particular eye towards Linux specific information. This portion of the book will be of use even to advanced programmers who have worked with other Linux systems since it will cover Linux specific details and differences. For programmers without UNIX experience, it will be even more valuable. The second section covers material that is entirely Linux specific. These are truly advanced topics, and are the techniques that the gurus use to build great applications. While this book will focus mostly on the Application Programming Interface (API) provided by the Linux kernel and the C library, a preliminary introduction to the development tools available will allow all who purchase the book to make immediate use of Linux.

Official Ubuntu Book

Advanced Linux Programming

Learn Linux, and take your career to the next level! Linux Essentials, 2nd Edition provides a solid foundation of knowledge for anyone considering a career in

information technology, for anyone new to the Linux operating system, and for anyone who is preparing to sit for the Linux Essentials Exam. Through this engaging resource, you can access key information in a learning-by-doing style. Hands-on tutorials and end-of-chapter exercises and review questions lead you in both learning and applying new information—information that will help you achieve your goals! With the experience provided in this compelling reference, you can sit down for the Linux Essentials Exam with confidence. An open source operating system, Linux is a UNIX-based platform that is freely updated by developers. The nature of its development means that Linux is a low-cost and secure alternative to other operating systems, and is used in many different IT environments. Passing the Linux Essentials Exam prepares you to apply your knowledge regarding this operating system within the workforce. Access lessons that are organized by task, allowing you to quickly identify the topics you are looking for and navigate the comprehensive information presented by the book Discover the basics of the Linux operating system, including distributions, types of open source applications, freeware, licensing, operations, navigation, and more Explore command functions, including navigating the command line, turning commands into scripts, and more Identify and create user types, users, and groups Linux Essentials, 2nd Edition is a critical resource for anyone starting a career in IT or anyone new to the Linux operating system.

Just for Fun

An accessible, yet comprehensive text that clearly explains Unix programming and structuring by addressing the fundamentals of Unix and providing alternative solutions to problems in concrete terms.

Mastering Embedded Linux Programming

Become a Linux sysadmin and expert user of Linux, even with no previous Linux experience and learn to manage complex systems with ease. Volume 1 of this three volume training course introduces operating systems in general and Linux in particular. It briefly explores the The Linux Philosophy for SysAdmins in preparation for the rest of the course. This book provides you with the tools necessary for mastering user management; installing, updating, and deleting software; and using command line tools to do performance tuning and basic problem determination. You'll begin by creating a virtual network and installing an instance of Fedora – a popular and powerful Linux distribution – on a VirtualBox VM that can be used for all of the experiments on an existing Windows or Linux computer. You'll then move on to the basics of using the Xfce GUI desktop and the many tools Linux provides for working on the command line including virtual consoles, various terminal emulators, BASH, and other shells. Explore data streams and the Linux tools used to manipulate them, and learn about the Vim text editor, which is indispensable to advanced Linux users and system administrators, and be introduced to some other text editors. You'll also see how to install software updates and new software, learn additional terminal emulators, and some advanced shell skills. Examine the sequence of events that take place as the computer boots and Linux starts up, configure your shell to personalize it in ways that can seriously enhance your command line efficiency, and delve into all things file and filesystems. What You Will Learn Install Fedora Linux and basic configuration of the Xfce desktop Access

the root user ID, and the care that must be taken when working as root Use Bash and other shells in the Linux virtual consoles and terminal emulators Create and modify system configuration files with Use the Vim text editor Explore administrative tools available to root that enable you to manage users, filesystems, processes, and basic network communications Configure the boot and startup sequences Who This Book Is For Anyone who wants to learn Linux as an advanced user and system administrator at the command line while using the GUI desktop to leverage productivity.

A Quarter Century of UNIX

Beginning Linux Programming, Fourth Edition continues its unique approach to teaching UNIX programming in a simple and structured way on the Linux platform. Through the use of detailed and realistic examples, students learn by doing, and are able to move from being a Linux beginner to creating custom applications in Linux. The book introduces fundamental concepts beginning with the basics of writing Unix programs in C, and including material on basic system calls, file I/O, interprocess communication (for getting programs to work together), and shell programming. Parallel to this, the book introduces the toolkits and libraries for working with user interfaces, from simpler terminal mode applications to X and GTK+ for graphical user interfaces. Advanced topics are covered in detail such as processes, pipes, semaphores, socket programming, using MySQL, writing applications for the GNOME or the KDE desktop, writing device drivers, POSIX Threads, and kernel programming for the latest Linux Kernel.

The Linux Philosophy for SysAdmins

-Teaches the reader how to use Unix, which is the key to basic computing and allows the most flexibility for bioinformatics applications -Written specifically with the needs of molecular biologists in mind -Easy to follow, written for beginners with no computational knowledge -Includes examples from biological data analysis -Can be use either for self-teaching or in courses

Fedora Linux

“As an author, editor, and publisher, I never paid much attention to the competition—except in a few cases. This is one of those cases. The UNIX System Administration Handbook is one of the few books we ever measured ourselves against.” —Tim O’Reilly, founder of O’Reilly Media “This edition is for those whose systems live in the cloud or in virtualized data centers; those whose administrative work largely takes the form of automation and configuration source code; those who collaborate closely with developers, network engineers, compliance officers, and all the other worker bees who inhabit the modern hive.” —Paul Vixie, Internet Hall of Fame-recognized innovator and founder of ISC and Farsight Security “This book is fun and functional as a desktop reference. If you use UNIX and Linux systems, you need this book in your short-reach library. It covers a bit of the systems’ history but doesn’t blaviate. It’s just straight-forward information delivered in a colorful and memorable fashion.” —Jason A. Nunnelley UNIX® and Linux® System Administration Handbook, Fifth Edition, is today’s definitive guide

to installing, configuring, and maintaining any UNIX or Linux system, including systems that supply core Internet and cloud infrastructure. Updated for new distributions and cloud environments, this comprehensive guide covers best practices for every facet of system administration, including storage management, network design and administration, security, web hosting, automation, configuration management, performance analysis, virtualization, DNS, security, and the management of IT service organizations. The authors—world-class, hands-on technologists—offer indispensable new coverage of cloud platforms, the DevOps philosophy, continuous deployment, containerization, monitoring, and many other essential topics. Whatever your role in running systems and networks built on UNIX or Linux, this conversational, well-written guide will improve your efficiency and help solve your knottiest problems.

Understanding Unix/Linux Programming

“As this book shows, Linux systems are just as functional, secure, and reliable as their proprietary counterparts. Thanks to the ongoing efforts of thousands of Linux developers, Linux is more ready than ever for deployment at the frontlines of the real world. The authors of this book know that terrain well, and I am happy to leave you in their most capable hands.” –Linus Torvalds “The most successful sysadmin book of all time—because it works!” –Rik Farrow, editor of ;login: “This book clearly explains current technology with the perspective of decades of experience in large-scale system administration. Unique and highly recommended.” –Jonathan Corbet, cofounder, LWN.net “Nemeth et al. is the overall winner for Linux administration: it’s intelligent, full of insights, and looks at the implementation of concepts.” –Peter Salus, editorial director, Matrix.net Since 2001, Linux Administration Handbook has been the definitive resource for every Linux® system administrator who must efficiently solve technical problems and maximize the reliability and performance of a production environment. Now, the authors have systematically updated this classic guide to address today’s most important Linux distributions and most powerful new administrative tools. The authors spell out detailed best practices for every facet of system administration, including storage management, network design and administration, web hosting, software configuration management, performance analysis, Windows interoperability, and much more. Sysadmins will especially appreciate the thorough and up-to-date discussions of such difficult topics such as DNS, LDAP, security, and the management of IT service organizations. Linux® Administration Handbook, Second Edition, reflects the current versions of these leading distributions: Red Hat® Enterprise Linux® Fedora™ Core SUSE® Linux Enterprise Debian® GNU/Linux Ubuntu® Linux Sharing their war stories and hard-won insights, the authors capture the behavior of Linux systems in the real world, not just in ideal environments. They explain complex tasks in detail and illustrate these tasks with examples drawn from their extensive hands-on experience.

UNIX and Linux System Administration Handbook

For the past 20 years, UNIX insiders have cherished and zealously guarded pirated photocopies of this manuscript, a "hacker trophy" of sorts. Now legal (and legible) copies are available. An international "who's who" of UNIX wizards, including Dennis Ritchie, have contributed essays extolling the merits and importance of this

underground classic.

Beginning Linux Programming

This book is for all people who are forced to use UNIX. It is a humorous book--pure entertainment--that maintains that UNIX is a computer virus with a user interface. It features letters from the thousands posted on the Internet's "UNIX-Haters" mailing list. It is not a computer handbook, tutorial, or reference. It is a self-help book that will let readers know they are not alone.

Using and Administering Linux: Volume 1

Freely available source code, with contributions from thousands of programmers around the world: this is the spirit of the software revolution known as Open Source. Open Source has grabbed the computer industry's attention. Netscape has opened the source code to Mozilla; IBM supports Apache; major database vendors have ported their products to Linux. As enterprises realize the power of the open-source development model, Open Source is becoming a viable mainstream alternative to commercial software. Now in Open Sources, leaders of Open Source come together for the first time to discuss the new vision of the software industry they have created. The essays in this volume offer insight into how the Open Source movement works, why it succeeds, and where it is going. For programmers who have labored on open-source projects, Open Sources is the new gospel: a powerful vision from the movement's spiritual leaders. For businesses integrating open-source software into their enterprise, Open Sources reveals the mysteries of how open development builds better software, and how businesses can leverage freely available software for a competitive business advantage. The contributors here have been the leaders in the open-source arena: Brian Behlendorf (Apache) Kirk McKusick (Berkeley Unix) Tim O'Reilly (Publisher, O'Reilly & Associates) Bruce Perens (Debian Project, Open Source Initiative) Tom Paquin and Jim Hamerly (mozilla.org, Netscape) Eric Raymond (Open Source Initiative) Richard Stallman (GNU, Free Software Foundation, Emacs) Michael Tiemann (Cygnus Solutions) Linus Torvalds (Linux) Paul Vixie (Bind) Larry Wall (Perl) This book explains why the majority of the Internet's servers use open-source technologies for everything from the operating system to Web serving and email. Key technology products developed with open-source software have overtaken and surpassed the commercial efforts of billion dollar companies like Microsoft and IBM to dominate software markets. Learn the inside story of what led Netscape to decide to release its source code using the open-source mode. Learn how Cygnus Solutions builds the world's best compilers by sharing the source code. Learn why venture capitalists are eagerly watching Red Hat Software, a company that gives its key product -- Linux -- away. For the first time in print, this book presents the story of the open-source phenomenon told by the people who created this movement. Open Sources will bring you into the world of free software and show you the revolution.

The UNIX-haters Handbook

Once upon a time Linus Torvalds was a skinny unknown, just another nerdy

Helsinki techie who had been fooling around with computers since childhood. Then he wrote a groundbreaking operating system and distributed it via the Internet -- for free. Today Torvalds is an international folk hero. And his creation LINUX is used by over 12 million people as well as by companies such as IBM. Now, in a narrative that zips along with the speed of e-mail, Torvalds gives a history of his renegade software while candidly revealing the quirky mind of a genius. The result is an engrossing portrayal of a man with a revolutionary vision, who challenges our values and may change our world.

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