

Sed Awk Unix Power Tools Nutshell Handbooks

There's nothing that hard-core Unix and Linux users are more fanatical about than their text editor. Editors are the subject of adoration and worship, or of scorn and ridicule, depending upon whether the topic of discussion is your editor or someone else's. vi has been the standard editor for close to 30 years. Popular on Unix and Linux, it has a growing following on Windows systems, too. Most experienced system administrators cite vi as their tool of choice. And since 1986, this book has been the guide for vi. However, Unix systems are not what they were 30 years ago, and neither is this book. While retaining all the valuable features of previous editions, the 7th edition of Learning the vi and vim Editors has been expanded to include detailed information on vim, the leading vi clone. vim is the default version of vi on most Linux systems and on Mac OS X, and is available for many other operating systems too. With this guide, you learn text editing basics and advanced tools for both editors, such as multi-window editing, how to write both interactive macros and scripts to extend the editor, and power tools for programmers -- all in the easy-to-follow style that has made this book a classic. Learning the vi and vim Editors includes: A complete introduction to text editing with vi: How to move around vi in a hurry Beyond the basics, such as using buffers vi's global search and replacement Advanced editing, including customizing vi and executing Unix commands How to make full use of vim: Extended text objects and more powerful regular expressions Multi-window editing and powerful vim scripts How to make full use of the GUI version of vim, called gvim vim's enhancements for programmers, such as syntax highlighting, folding and extended tags Coverage of three other popular vi clones -- nvi, elvis, and vile -- is also included. You'll find several valuable appendixes, including an alphabetical quick reference to both vi and ex mode commands for regular vi and for vim, plus an updated appendix on vi and the Internet. Learning either vi or vim is required knowledge if you use Linux or Unix, and in either case, reading this book is essential. After reading this book, the choice of editor will be obvious for you too.

Experience an in-depth exploration of logical volume management and the use of file managers to manipulate files and directories and the critical concept that, in Linux, everything is a file and some fun and interesting uses of the fact that everything is a file. This book builds upon the skills you learned in Volume 1 of this course and it depends upon the virtual network and virtual machine created there. More experienced Linux users can begin with this volume and download the assigned script that will set up the VM for the start of Volume 2. Instructions with the script will provide specifications for configuration of the virtual network and the virtual machine. Refer to the volume overviews in the book's introduction to select the volume of this course most appropriate for your current skill level. You'll see how to manage and monitor running processes, discover the power of the special filesystems, monitor and tune the kernel while it is running – without

a reboot. You'll then turn to regular expressions and the power that using them for pattern matching can bring to the command line, and learn to manage printers and printing from the command line and unlock the secrets of the hardware on which your Linux operating system is running. Experiment with command line programming and how to automate various administrative tasks, networking, and the many services that are required in a Linux system. Use the logs and journals to look for clues to problems and confirmation that things are working correctly, and learn to enhance the security of your Linux systems and how to perform easy local and remote backups. What You Will Learn Understand Logical Volume Management, using file managers, and special filesystems Exploit everything in a file Perform command line programming and basic automation Configure printers and manage other hardware Manage system services with systemd, user management, security, and local and remote backups using simple and freely available tools Who This Book Is For Anyone who wants to continue to learn Linux in depth as an advanced user and system administrator at the command line while using the GUI desktop to leverage productivity.

If you're like most UNIX users, you have a job to do aside from exploring your operating system - like analyzing that hot new stock, running another experiment, or typesetting another report. What happens when you have problems? What happens when the system slows to a crawl, when you can't get logged back in after a power failure, or when you've sent a file to the printer three times but have yet to find a printout? When You Can't Find Your UNIX System Administrator is written to give you tools for solving problems. We provide practical solutions for problems you're likely to encounter in logging in, running programs, sharing files, managing space resources, printing, and so on; just enough background so that you can make sense of our suggestions, rather than simply memorizing keystrokes; an explanation of how to present problems to your system administrator so that you're more likely to get quick, accurate support; a list of the site-specific information to which you should have access, and a place to write it down; and a Quick Reference worksheet summarizing what to try first, second, third for commonly encountered problems. The goal of this book is not to make you a guru, but to get you back to the job you'd rather be doing.

A wealth of open and free software is available today for Windows developers who want to extend the development environment, reduce development effort, and increase productivity. This encyclopedic guide explores more than 100 free and open source tools available to programmers who build applications for Windows desktops and servers.

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

Explains the progression in Unix from grep to sed and awk, describes how to write sed scripts, covers common programming constructs, and details awk's built-in functions

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.

Effective awk Programming, 3rd Edition, focuses entirely on awk, exploring it in the greatest depth of the three awk titles we carry. It's an excellent companion piece to the more broadly focused second edition. This book provides complete coverage of the gawk 3.1 language as well as the most up-to-date coverage of the POSIX standard for awk available anywhere. Author Arnold Robbins clearly distinguishes standard awk features from GNU awk (gawk)-specific features, shines light into many of the "dark corners" of the language (areas to watch

out for when programming), and devotes two full chapters to example programs. A brand new chapter is devoted to TCP/IP networking with gawk. He includes a summary of how the awk language evolved. The book also covers: Internationalization of gawk Interfacing to i18n at the awk level Two-way pipes TCP/IP networking via the two-way pipe interface The new PROCINFO array, which provides information about running gawk Profiling and pretty-printing awk programs In addition to covering the awk language, this book serves as the official "User's Guide" for the GNU implementation of awk (gawk), describing in an integrated fashion the extensions available to the System V Release 4 version of awk that are also available in gawk. As the official gawk User's Guide, this book will also be available electronically, and can be freely copied and distributed under the terms of the Free Software Foundation's Free Documentation License (FDL). A portion of the proceeds from sales of this book will go to the Free Software Foundation to support further development of free and open source software. The third edition of Effective awk Programming is a GNU Manual and is published by O'Reilly & Associates under the Free Software Foundation's Free Documentation License (FDL). A portion of the proceeds from the sale of this book is donated to the Free Software Foundation to further development of GNU software. This book is also available in electronic form; you have the freedom to modify this GNU Manual, like GNU software. Copies published by the Free Software Foundation raise funds for GNU development.

Applying revision control system and source code control system.

Shell scripting skills never go out of style. It's the shell that unlocks the real potential of Unix. Shell scripting is essential for Unix users and system administrators—a way to quickly harness and customize the full power of any Unix system. With shell scripts, you can combine the fundamental Unix text and file processing commands to crunch data and automate repetitive tasks. But beneath this simple promise lies a treacherous ocean of variations in Unix commands and standards. Classic Shell Scripting is written to help you reliably navigate these tricky waters. Writing shell scripts requires more than just a knowledge of the shell language, it also requires familiarity with the individual Unix programs: why each one is there, how to use them by themselves, and in combination with the other programs. The authors are intimately familiar with the tips and tricks that can be used to create excellent scripts, as well as the traps that can make your best effort a bad shell script. With Classic Shell Scripting you'll avoid hours of wasted effort. You'll learn not only write useful shell scripts, but how to do it properly and portably. The ability to program and customize the shell quickly, reliably, and portably to get the best out of any individual system is an important skill for anyone operating and maintaining Unix or Linux systems. Classic Shell Scripting gives you everything you need to master these essential skills.

For many users, working in the Unix environment means using vi, a full-screen text editor available on most Unix systems. Even those who know vi often make use of only a small number of its features. Learning the vi Editor is a complete guide to text editing with vi. Topics new to the sixth edition include multiscreen editing and coverage of four vi clones: vim, elvis, nvi, and vile and their enhancements to vi, such as multi-window editing, GUI interfaces, extended regular expressions, and enhancements for programmers. A new appendix describes vi's place in the Unix and Internet cultures. Quickly learn the basics of editing, cursor movement, and global search and replacement. Then take advantage of the more subtle power of vi. Extend your editing skills by learning to use ex, a powerful line editor, from within vi. For easy reference, the sixth edition also includes a command summary at the end of each appropriate chapter. Topics covered include: Basic editing Moving around in a hurry Beyond the basics Greater power with ex Global search and replacement Customizing vi and ex Command shortcuts Introduction to the vi clones' extensions Then vi, elvis, vim, and vile editors Quick reference to vi and ex commands vi and the Internet

Regular expressions are an extremely powerful tool for manipulating text and data. They are now standard features in a wide range of

languages and popular tools, including Perl, Python, Ruby, Java, VB.NET and C# (and any language using the .NET Framework), PHP, and MySQL. If you don't use regular expressions yet, you will discover in this book a whole new world of mastery over your data. If you already use them, you'll appreciate this book's unprecedented detail and breadth of coverage. If you think you know all you need to know about regular expressions, this book is a stunning eye-opener. As this book shows, a command of regular expressions is an invaluable skill. Regular expressions allow you to code complex and subtle text processing that you never imagined could be automated. Regular expressions can save you time and aggravation. They can be used to craft elegant solutions to a wide range of problems. Once you've mastered regular expressions, they'll become an invaluable part of your toolkit. You will wonder how you ever got by without them. Yet despite their wide availability, flexibility, and unparalleled power, regular expressions are frequently underutilized. Yet what is power in the hands of an expert can be fraught with peril for the unwary. Mastering Regular Expressions will help you navigate the minefield to becoming an expert and help you optimize your use of regular expressions. Mastering Regular Expressions, Third Edition, now includes a full chapter devoted to PHP and its powerful and expressive suite of regular expression functions, in addition to enhanced PHP coverage in the central "core" chapters. Furthermore, this edition has been updated throughout to reflect advances in other languages, including expanded in-depth coverage of Sun's `java.util.regex` package, which has emerged as the standard Java regex implementation. Topics include: A comparison of features among different versions of many languages and tools How the regular expression engine works Optimization (major savings available here!) Matching just what you want, but not what you don't want Sections and chapters on individual languages Written in the lucid, entertaining tone that makes a complex, dry topic become crystal-clear to programmers, and sprinkled with solutions to complex real-world problems, Mastering Regular Expressions, Third Edition offers a wealth of information that you can put to immediate use. Reviews of this new edition and the second edition: "There isn't a better (or more useful) book available on regular expressions." --Zak Greant, Managing Director, eZ Systems "A real tour-de-force of a book which not only covers the mechanics of regexes in extraordinary detail but also talks about efficiency and the use of regexes in Perl, Java, and .NET...If you use regular expressions as part of your professional work (even if you already have a good book on whatever language you're programming in) I would strongly recommend this book to you." --Dr. Chris Brown, Linux Format "The author does an outstanding job leading the reader from regex novice to master. The book is extremely easy to read and chock full of useful and relevant examples...Regular expressions are valuable tools that every developer should have in their toolbox. Mastering Regular Expressions is the definitive guide to the subject, and an outstanding resource that belongs on every programmer's bookshelf. Ten out of Ten Horseshoes." --Jason Menard, Java Ranch

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"

This book shows how UNIX can be used effectively in the preparation of written documents, especially in the process of producing book-length documents, i.e. typesetting. As this book will demonstrate the tools available in the UNIX environment, it is also valuable to examine text processing in terms of problems and solutions: the problems faced by a writer undertaking a large writing project and the solutions offered by using the resources and power of a computer system.

'Approximately 50,000 Canadians move to the U.S. every year. Already, there are hundreds of thousands of ex-Canadians living south of the border. The similarity in language, currency, culture, services, and products of these two countries can lead Canadians in the U.S. to mistakenly think that its laws and customs are also the same. It is these areas where The Canadian in America will be crucial to anyone either contemplating a move or already living in the U.S. Can a Canadian qualify for U.S. Medicare at age 65? Is a Canadian will valid in the

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.

What if you could sit down with some of the most talented security engineers in the world and ask any network security question you wanted? Security Power Tools lets you do exactly that! Members of Juniper Networks' Security Engineering team and a few guest experts reveal how to use, tweak, and push the most popular network security applications, utilities, and tools available using Windows, Linux, Mac OS X, and Unix platforms. Designed to be browsed, Security Power Tools offers you multiple approaches to network security via 23 cross-referenced chapters that review the best security tools on the planet for both black hat techniques and white hat defense tactics. It's a must-have reference for network administrators, engineers and consultants with tips, tricks, and how-to advice for an assortment of freeware and commercial tools, ranging from intermediate level command-line operations to advanced programming of self-hiding exploits. Security Power Tools details best practices for: Reconnaissance -- including tools for network scanning such as nmap; vulnerability scanning tools for Windows and Linux; LAN reconnaissance; tools to help with wireless reconnaissance; and custom packet generation Penetration -- such as the Metasploit framework for automated penetration of remote computers; tools to find wireless networks; exploitation framework applications; and tricks and tools to manipulate shellcodes Control -- including the configuration of several tools for use as backdoors; and a review of known rootkits for Windows and Linux Defense -- including host-based firewalls; host hardening for Windows and Linux networks; communication security with ssh; email security and anti-malware; and device security testing Monitoring -- such as tools to capture, and analyze packets; network monitoring with Honeyd and snort; and host monitoring of production servers for file changes Discovery -- including The Forensic Toolkit, SysInternals and other popular forensic tools; application fuzzer and fuzzing techniques; and the art of binary reverse engineering using tools like Interactive Disassembler and Ollydbg A practical and timely network security ethics chapter written by a Stanford University professor of law completes the suite of topics and makes this book a goldmine of security information. Save yourself a ton of headaches and be prepared for any network security dilemma with Security Power Tools.

The key to mastering any Unix system, especially Linux and Mac OS X, is a thorough knowledge of shell scripting. Scripting is a way to harness and customize the power of any Unix system, and it's an essential skill for any Unix users, including system administrators and professional OS X developers. But beneath this simple promise lies a treacherous ocean of variations in Unix commands and standards. bash Cookbook teaches shell scripting the way Unix masters practice the craft. It presents a variety of recipes and tricks for all levels of shell programmers so that anyone can become a proficient user of the most common Unix shell -- the bash shell -- and cygwin or other popular Unix emulation packages. Packed full of useful scripts, along with examples that explain how to create better scripts, this new cookbook

gives professionals and power users everything they need to automate routine tasks and enable them to truly manage their systems -- rather than have their systems manage them.

OpenBSD, the elegant, highly secure Unix-like operating system, is widely used as the basis for critical DNS servers, routers, firewalls, and more. This long-awaited second edition of Absolute OpenBSD maintains author Michael Lucas's trademark straightforward and practical approach that readers have enjoyed for years. You'll learn the intricacies of the platform, the technical details behind certain design decisions, and best practices, with bits of humor sprinkled throughout. This edition has been completely updated for OpenBSD 5.3, including new coverage of OpenBSD's boot system, security features like `W^X` and `ProPolice`, and advanced networking techniques. You'll learn how to: –Manage network traffic with VLANs, trunks, IPv6, and the PF packet filter –Make software management quick and effective using the ports and packages system –Give users only the access they need with groups, sudo, and chroots –Configure OpenBSD's secure implementations of SNMP, DHCP, NTP, hardware sensors, and more –Customize the installation and upgrade processes for your network and hardware, or build a custom OpenBSD release Whether you're a new user looking for a complete introduction to OpenBSD or an experienced sysadmin looking for a refresher, Absolute OpenBSD, 2nd Edition will give you everything you need to master the intricacies of the world's most secure operating system.

`sed` & `awk` describes two text processing programs that are mainstays of the UNIX programmer's toolbox. `sed` is a "stream editor" for editing streams of text that might be too large to edit as a single file, or that might be generated on the fly as part of a larger data processing step. The most common operation done with `sed` is substitution, replacing one block of text with another. `awk` is a complete programming language. Unlike many conventional languages, `awk` is "data driven" -- you specify what kind of data you are interested in and the operations to be performed when that data is found. `awk` does many things for you, including automatically opening and closing data files, reading records, breaking the records up into fields, and counting the records. While `awk` provides the features of most conventional programming languages, it also includes some unconventional features, such as extended regular expression matching and associative arrays. `sed` & `awk` describes both programs in detail and includes a chapter of example `sed` and `awk` scripts. This edition covers features of `sed` and `awk` that are mandated by the POSIX standard. This most notably affects `awk`, where POSIX standardized a new variable, `CONVFMT`, and new functions, `toupper()` and `tolower()`. The `CONVFMT` variable specifies the conversion format to use when converting numbers to strings (`awk` used to use `OFMT` for this purpose). The `toupper()` and `tolower()` functions each take a (presumably mixed case) string argument and return a new version of the string with all letters translated to the corresponding case. In addition, this edition covers GNU `sed`, newly available since the first edition. It also updates the first edition coverage of Bell Labs `nawk` and GNU `awk` (`gawk`), covers

mawk, an additional freely available implementation of awk, and briefly discusses three commercial versions of awk, MKS awk, Thompson Automation awk (tawk), and Videosoft (VSAwk).

Software -- Programming Languages.

Contains six helpful guides to UNIX, along with the software from UNIX Power Tools on CD-ROM, including UNIX in a Nutshell. Third Edition, UNIX Power Tools. Second Edition, Learning the UNIX Operating System. Fourth Edition, Learning the vi Editor. Sixth Edition, sed & awk. Second Edition, and Learning the Korn Shell.

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.

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)

For people who create and modify text files, sed and awk are power tools for editing. sed, awk, and regular expressions allow programmers and system administrators to automate editing tasks that need to be performed on one or more files, to simplify the task of performing the same edits on multiple files, and to write conversion programs. The sed & awk Pocket Reference is a companion volume to sed & awk, Second Edition, Unix in a Nutshell, Third Edition, and Effective awk Programming, Third Edition. This new edition has expanded coverage of gawk (GNU awk), and includes sections on: An overview of sed and awk's command line syntax Alphabetical summaries of commands, including nawk and gawk Profiling with pgawk Coprocesses and sockets with

gawk Internationalization with gawk A listing of resources for sed and awk users This small book is a handy reference guide to the information presented in the larger volumes. It presents a concise summary of regular expressions and pattern matching, and summaries of sed and awk. Arnold Robbins, an Atlanta native now happily living in Israel, is a professional programmer and technical author and coauthor of various O'Reilly Unix titles. He has been working with Unix systems since 1980, and currently maintains gawk and its documentation.

As an open operating system, Unix can be improved on by anyone and everyone: individuals, companies, universities, and more. As a result, the very nature of Unix has been altered over the years by numerous extensions formulated in an assortment of versions. Today, Unix encompasses everything from Sun's Solaris to Apple's Mac OS X and more varieties of Linux than you can easily name. The latest edition of this bestselling reference brings Unix into the 21st century. It's been reworked to keep current with the broader state of Unix in today's world and highlight the strengths of this operating system in all its various flavors. Detailing all Unix commands and options, the informative guide provides generous descriptions and examples that put those commands in context. Here are some of the new features you'll find in Unix in a Nutshell, Fourth Edition: Solaris 10, the latest version of the SVR4-based operating system, GNU/Linux, and Mac OS X Bash shell (along with the 1988 and 1993 versions of ksh) tsch shell (instead of the original Berkeley csh) Package management programs, used for program installation on popular GNU/Linux systems, Solaris and Mac OS X GNU Emacs Version 21 Introduction to source code management systems Concurrent versions system Subversion version control system GDB debugger As Unix has progressed, certain commands that were once critical have fallen into disuse. To that end, the book has also dropped material that is no longer relevant, keeping it taut and current. If you're a Unix user or programmer, you'll recognize the value of this complete, up-to-date Unix reference. With chapter overviews, specific examples, and detailed command.

System administrators need libraries of solutions that are ingenious but understandable. They don't want to reinvent the wheel, but they don't want to reinvent filesystem management either! Expert Shell Scripting is the ultimate resource for all working Linux, Unix, and OS X system administrators who would like to have short, succinct, and powerful shell implementations of tricky system scripting tasks. Automating small to medium system management tasks Analyzing system data and editing configuration files Scripting Linux, Unix, and OS X applications using bash, ksh, et al.

Unix Power Tools"O'Reilly Media, Inc."

This Nutshell Handbook® is a thorough introduction to the Korn shell, both as a user interface and as a programming language. The Korn shell, like the C and Bourne shells, is a program that interprets UNIX commands. It has many features that aren't found in other shells, including command history (the ability to recall and edit previous commands). The Korn shell is also faster; several of its features allow you to write programs that execute more quickly than their Bourne or C shell equivalents. This book provides a clear and concise explanation of the Korn shell's features. It explains ksh string operations, co-processes, signals and signal handling, and one of the worst "dark corners" of shell programming: command-line interpretation. It does this by

introducing simple real-life examples and then adding options and complexity in later chapters, illustrating the way real-world script development generally proceeds. An additional (and unique) programming aid, a Korn shell debugger (kshdb), is also included. Learning the Korn Shell is an ideal resource for many UNIX users and programmers, including software developers who want to "prototype" their designs, system administrators who want to write tools for their own use, and even novices who just want to use some of ksh's more advanced interactive features.

For many users, working in the UNIX environment means using vi, a full-screen text editor available on most UNIX systems. Even those who know vi often make use of only a small number of its features. The vi Editor Pocket Reference is a companion volume to O'Reilly's updated sixth edition of Learning the vi Editor, a complete guide to text editing with vi. New topics in Learning the vi Editor include multi-screen editing and coverage of four vi clones: vim, elvis, nvi, and vile. This small book is a handy reference guide to the information in the larger volume, presenting movement and editing commands, the command-line options, and other elements of the vi editor in an easy-to-use tabular format.

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.

This thoroughly revised guide demonstrates how the flexibility of the command line can help you become a more efficient and productive data scientist. You'll learn how to combine small yet powerful command-line tools to quickly obtain, scrub, explore, and model your data. To get you started, author Jeroen Janssens provides a Docker image packed with over 80 tools--useful whether you work with Windows, macOS, or Linux. You'll quickly discover why the command line is an agile, scalable, and extensible technology. Even if you're comfortable processing data with Python or R, you'll learn how to greatly improve your data science workflow by leveraging the command line's power. This book is ideal for data scientists, analysts, and engineers; software and machine learning engineers; and system administrators. Obtain data from websites, APIs, databases, and spreadsheets Perform scrub operations on text, CSV, HTML, XML, and JSON files Explore data, compute descriptive statistics, and create visualizations Manage your data science workflow Create reusable command-line tools from one-liners and existing Python or R code Parallelize and distribute data-intensive pipelines Model data with dimensionality reduction, clustering, regression, and classification algorithms

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

grep Pocket Reference is the first guide devoted to grep, the powerful Unix content-location utility. This handy book is ideal for system administrators, security professionals, developers, and others who want to learn more about grep and take new approaches with it -- for everything from mail filtering and system log management to malware analysis. With grep Pocket Reference, you will: Learn methods for filtering large files for specific content Acquire information not included in the current grep documentation Get several tricks for using variants such as egrep Keep key information about grep right at your fingertips Find the answers you need about grep quickly and easily. If you're familiar with this utility, grep Pocket Reference will help you refresh your basic knowledge, understand rare situations, and work more efficiently. If you're new to grep, this book is the best way to get started.

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