Learning The Bash Shell A Nutshell Handbook

This volume is the official reference manual for GNU Bash, the standard GNU command-line interpreter. UNIX expert Randal K. Michael guides you through every detail of writing shell scripts to automate specific tasks. Each chapter begins with a typical, everyday UNIX challenge, then shows you how to take basic syntax and turn it into a shell scripting solution. Covering Bash, Bourne, and Korn shell scripting, this updated edition provides complete shell scripts plus detailed descriptions of each part. UNIX programmers and system administrators can tailor these to build tools that monitor for specific system events and situations, building solid UNIX shell scripting skills to solve real-world system administration problems.

Shell Scripting Made Easy If you want to learn how to write shell scripts like a pro, solve real-world problems, or automate repetitive and complex tasks, read on. Hello. My name is Jason Cannon and I'm the author of Linux for Beginners, Python Programming for Beginners, and an instructor to thousands of satisfied students. I started my IT career in the late 1990's as a Unix and Linux System Engineer and I'll be sharing my real-world shell scripting and bash programming experience with you throughout this book. By the end of this book you will be able to create shell scripts with ease. You'll learn how to take tedious and repetitive tasks and turn them into programs that will save you time and simplify your life on Linux, Unix, or MAC systems. Here is what you will get and learn by reading this Shell Scripting book: A step-by-step process of writing shell scripts that solve real-world problems. The #1 thing you must do every time you create a shell script. How to quickly find and fix the most shell scripting errors. How to accept input from a user and then make decisions on that input. How to accept and process command line arguments. What special variables are available, how to use them in your shell scripts, and when to do so. A shell script creation check list -- You'll never have to guess what to include in each of your shell scripts again. Just use this simple check list. A shell script template (boilerplate). Use this format for each of your shell scripts. It shows exactly what to include and where everything goes. Eliminate guesswork! Practice exercises with solutions so you can start using what you learn right away. Real-world examples of shell scripts from my personal collection. A download that contains the scripts used in the book and lessons. You'll be able to look at and experiment with everything you're learning. Learn to Program Using Any Shell Scripting Language What you learn in this book can be applied to any shell, however the focus is on the bash shell and you'll learn some really advanced bash features. Again, whether you're using bash, bourne (sh), KornShell (ksh), C shell (csh), Z shell (zsh), or even the tcsh shell, you'll be able to put what you learn in this book to good use. Perfect for Linux, Unix, Mac and More! Also, you'll be able to use these scripts on any Linux environment including Ubuntu, Debian, Linux Mint, RedHat, Fedora, OpenSUSE, Slackware, Kali Linux and more. You're scripts will even run on other operating
systems such as Apple's Mac OS X, Oracle's Solaris, IBM's AIX, HP's HP-UX, FreeBSD, NetBSD, and OpenBSD. Scroll up, click the Buy Now With 1 Click button and get started learning Linux today!

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.

This guide aims to aid people interested in learning to work with BASH. It aspires to teach good practice techniques for using BASH, and writing simple scripts. This guide is targeted at beginning users. It assumes no advanced knowledge -- just the ability to login to a Unix-like system and open a command-line (terminal) interface. It will help if you know how to use a text editor; we will not be covering editors, nor do we endorse any particular editor choice. Familiarity with the fundamental Unix tool set, or with other programming languages or programming concepts, is not required, but those who have such knowledge may understand some of the examples more quickly.

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

Pro Bash Programming teaches you how to effectively utilize the Bash shell in your programming. The Bash shell is a complete programming language, not merely a glue to combine external Linux commands. By taking full advantage of Shell internals, Shell programs can perform as snappily as utilities written in C or other compiled languages. And you will see how, without assuming Unix lore, you can write professional Bash 4.3 programs through standard programming techniques. This second edition has updated for Bash 4.3, and many scripts have been rewritten to make them more idiomatically Bash, taking better advantage of features specific to Bash. It is easy to read, understand, and will teach you how to get to grips with Bash programming without drowning you in pages and pages of syntax. Using this book you will be able to use the shell efficiently, make scripts run faster using expansion and external commands, and understand how to overcome many common mistakes that cause scripts to fail. This book is perfect for all beginning Linux and Unix system administrators who want to be in full control of their systems, and really get to grips with Bash programming. This book is an exploration of Shell programming, also referred to as Bash Scripting. It begins by guiding you on how to automate the various tasks in UNIX by using the Shell scripts. The book also guides you on the effective steps on how to write the Shell scripts. In UNIX, we should come up with an effective mechanism for management of file systems and software packages. This book guides you on the effective way to do this in Shell. You are also guided on how to use the various UNIX editors such as the Vim editor, nano, and GNOME. You will learn how to use the various shortcuts provided by these text editors, as well as how to navigate within your file opened in the text editor. Structured commands, which are very common in Shell, are discussed in detail. You will learn how to use such statements for decision-making as well as for looping through your program. You are also guided on how to manipulate your text, as well as how to use regular expressions. In some programs, it is good for you to implement a mechanism for accepting user input and then making a decision based on that input. This book clearly guides you on how to do this in Bash scripting. Command line arguments have also been explored in detail. The following topics are discussed in this book: - Automate Tasks with Simple Script Utilities - Creating Shell Scripts - Manage Filesystems and Software Packages - Work with nano, KDE, and GNOME editors - Structured Commands, Text Manipulation, and Regular Expressions - Keyboard Input - Command Line Arguments

The first thing users of the Linux operating system come face to face with is the
shell. "Shell" is the UNIX term for a user interface to the system -- something that lets you communicate with the computer via the keyboard and display. Bash, the Free Software Foundation's "Bourne Again Shell," is the default shell for Linux, the popular free UNIX-like operating system. It's also a replacement for the standard UNIX Bourne shell, which serves both as a user interface and as a programming language. Like the FSF's other tools, bash is more than a mere replacement: it extends the Bourne shell in many ways. Features include command line editing, key bindings, integrated programming features, command completion, control structures (especially the select construct, which enables you to create menus easily), and new ways to customize your environment. Whether you want to use bash for its user interface or its programming features you will find Learning the bash Shell a valuable guide. The book covers all of bash 's features, both for interactive use and programming. If you are new to shell programming, Learning the bash Shell provides an excellent introduction, covering everything from the most basic to the most advanced features, like signal handling and command line processing. If you've been writing shell scripts for years, it offers a great way to find out what the new shell offers. The book is full of examples of shell commands and programs that are designed to be useful in your everyday life as a user, not just to illustrate the feature being explained. All of these examples are freely available to you online on the Internet. This second edition covers all of the features of bash Version 2.0, while still applying to bash Version 1.x. New features include the addition of one-dimensional arrays, parameter expansion, and more pattern-matching operations. bash 2.0 provides even more conformity with POSIX.2 standards, and in POSIX.2 mode is completely POSIX.2 conformant. This second edition covers several new commands, security improvements, additions to ReadLine, improved configuration and installation, and an additional programming aid, the bash shell debugger. With this book you'll 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 witho ...
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 (or command line). Along the way you'll learn the timeless skills handed down by generations of experienced, 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.

Master the complexities of Bash shell scripting and unlock the power of shell for your enterprise Key Features Identify high-level steps such as verifying user input Using the command line and conditional statements in creating/executing simple shell scripts Create and edit dynamic shell scripts to manage complex and repetitive tasks Leverage the command-line to bypass GUI and automate common tasks Book Description In this book, you'll discover everything you need to know to master shell scripting and make informed choices about the elements you employ. Grab your favorite editor and start writing your best Bash scripts step by step. Get to grips with the fundamentals of creating and running a script in normal mode, and in debug mode. Learn about various conditional statements' code snippets, and realize the power of repetition and loops in your shell script. You will also learn to write complex shell scripts. This book will also deep dive into file system administration, directories, and system administration like networking, process management, user authentications, and package installation and regular expressions. Towards the end of the book, you will learn how to use Python as a BASH Scripting alternative. By the end of this book, you will know shell scripts at the snap of your fingers and will be able to automate and communicate with your system with keyboard expressions. What you will learn Make, execute, and debug your first Bash script Create interactive scripts that prompt for user input Foster menu structures for operators with little command-line experience Develop scripts that dynamically edit web configuration files to produce a new virtual host Write scripts that use AWK to search and reports on log files Draft effective scripts using functions as building blocks, reducing maintenance and build time Make informed choices by comparing different script languages such as Python with BASH Who this book is for If you are a Linux administrator or a system administrator and are interested in automating tasks in your daily lives, saving time and effort, this book is for you. Basic shell scripting and command-line experience will be required. Familiarity with the tasks you need to automate will be helpful.

The bash shell is a complete programming language, not merely a glue to combine external Linux commands. By taking full advantage of shell internals, shell programs can perform as snappily as utilities written in C or other compiled languages. And you will see how, without assuming Unix lore, you can write professional bash 4.0 programs through standard programming techniques. Complete bash coverage Teaches bash as a programming language Helps you master bash 4.0 features
Intended to anyone interested in numerical computing and data science: students, researchers, teachers, engineers, analysts, hobbyists... Basic knowledge of Python/NumPy is recommended. Some skills in mathematics will help you understand the theory behind the computational methods. Learn how to develop powerful and robust shell scripts in order to get the most out of your Unix/Linux system.

Finally, Learning the bash Shell, Second Edition, shows you how to acquire, install, configure, and customize bash, and gives advice to system administrators managing bash for their user community.

Bash Scripting
Think of a script for a play, or a movie, or a TV show. The script tells the actors what they should say and do. A script for a computer tells the computer what it should do or say. In the context of Bash scripts we are telling the Bash shell what it should do. A Bash script is a plain text file which contains a series of commands. These commands are a mixture of commands we would normally type ourselves on the command line (such as ls or cp for example) and commands we could type on the command line but generally wouldn't (you'll discover these over the next few pages). An important point to remember though is: Anything you can run normally on the command line can be put into a script and it will do exactly the same thing. Similarly, anything you can put into a script can also be run normally on the command line and it will do exactly the same thing. You don't need to change anything. Just type the commands as you would normally and they will behave as they would normally. It's just that instead of typing them at the command line we are now entering them into a plain text file. In this sense, if you know how to do stuff at the command line then you already know a fair bit in terms of Bash scripting. It is convention to give files that are Bash scripts an extension of .sh (myscript.sh for example). As you would be aware (and if you're not maybe you should consider reviewing our Linux Tutorial), Linux is an extensionless system so a script doesn't necessarily have to have this characteristic in order to work.

BECOME A COMMAND LINE COMMANDO! Running the Git Bash shell on a Windows system gives you access to much of the power of Linux without the headaches of administering a virtual machine or setting up a dual-boot system. Learn how easy it is to install and configure Git and the Bash shell, and the power of many of the Linux utilities that are included with your installation. Learn the basics of Bash shell scripting, and the many conveniences that Bash provides for its users, such as easy command history manipulation, auto-completion, and job control, while continuing to use your favorite graphical tools. Freely cut and paste between your command line window and your favorite Windows applications. If you wish, learn the basics of the Git version control system as well, but rest assured that you can get all the benefits of using Bash without having to learn Git at all. Become a Command Line Commando, and never fear the command line again! AUTHOR’S NOTE While much of this book applies to using Bash on any operating system, Linux and Macintosh users will probably already be familiar with a lot of the material. Windows users, especially those who are hesitant to work from the command line, will get the most benefit from this book. While the Git version control system and the Bash shell are conceptually two separate products, one Windows installer will provide you with both, along with dozens of additional Linux utilities. One of the challenges for an author is not only
deciding what material to cover, but also what to leave out. Thoroughly covering all the topics involved would have resulted in a 1500-page book. Instead, I have tried to pare the coverage down to the essentials and ignore more advanced features that many people will never use. However, I have retained some of the more advanced topics such as regular expressions, which are critical for programmers to understand, and which will reappear in many other contexts. If you don't agree with my choices, feel free to skip sections that aren't appropriate for your needs. You will notice that I haven't stuffed the page with fake reviews from friends who haven't even read the book. So if you order it and find it useful, I would be very grateful if you would take a few minutes to post a positive review. And in the event you don't like it, well, I hope you can at least offer some constructive criticism. Thank you, and I hope you enjoy the book!

* In-depth, unique coverage of ZSH, one of most modern and powerful of all shells. Also covers Bash, the preferred shell for most serious Linux and Unix users. * Very strong author and tech review team: Co-author Peter Stephenson has been involved in the development of Zsh since the 1990s when he started to write the FAQ. For the last few years, he has served as coordinator of the shell's development. Tech Reviewers: Ed Schaefer is the "Shell Corner" columnist for SysAdmin Magazine and Bart Schaefer is one of the lead developers of Zsh development. * Book is immediately useful, packed with short example and suggestions that the reader can put to use in their shell environment. * Extensive coverage of interactive and advanced shell features, including shell extensions, completion functions, and shortcuts. * Great book for users of all expertise; perennial seller.

Learn how to write shell script effectively with Bash, to quickly and easily write powerful scripts to manage processes, automate tasks, and to redirect and filter program input and output in useful and novel ways. Key Features Demystify the Bash command line Write shell scripts safely and effectively Speed up and automate your daily work Book Description Bash and shell script programming is central to using Linux, but it has many peculiar properties that are hard to understand and unfamiliar to many programmers, with a lot of misleading and even risky information online. Bash Quick Start Guide tackles these problems head on, and shows you the best practices of shell script programming. This book teaches effective shell script programming with Bash, and is ideal for people who may have used its command line but never really learned it in depth. This book will show you how even simple programming constructs in the shell can speed up and automate any kind of daily command-line work. For people who need to use the command line regularly in their daily work, this book provides practical advice for using the command-line shell beyond merely typing or copy-pasting commands into the shell. Readers will learn techniques suitable for automating processes and controlling processes, on both servers and workstations, whether for single command lines or long and complex scripts. The book even includes information on configuring your own shell environment to suit your workflow, and provides a running start for interpreting Bash scripts written by others. What you will learn Understand where the Bash shell fits in the system administration and programming worlds Use the interactive Bash command line effectively Get to grips with the structure of a Bash command line Master pattern-matching and transforming text with Bash Filter and redirect program input and output Write shell scripts safely and effectively Who this book is for People who use the command line on Unix and Linux servers already, but don't write primarily in Bash. This book is ideal for people who've been using a scripting language such as Python, JavaScript or PHP, and would like to understand and use Bash more effectively.

SHELL SCRIPTING, UNIX, LINUX This book is for all those who are willing to learn UNIX like operating system and shell scripting. You can start reading this book without any knowledge of programming / scripting or any knowledge of any Linux/ UNIX operating system. All of the programs / scripts in this book are explained as a step by step program with clear instructions.
Each chapter will contain a certain number of relevant topics with illustrations and exercises where necessary, this will all be finished off with an end of chapter quiz for an easy and enjoyable learning. In this book you will find the following topics: wildcards, functions, text processing, text searching, loops, troubleshooting and debugging. At the end of this book you will learn how to write more complex scripts using variables, functions and loops. If you are Linux new user, so this book is good for you, keep in mind this is not about Linux system administration. CLICK ADD TO CART TO GET THIS AMAZING BOOK!

Create and maintain powerful Bash scripts for automation and administration. Key Features

- Get up and running with Linux shell scripting using real-world examples
- Leverage command-line techniques and methodologies to automate common yet complex administration tasks
- A practical guide with exposure to scripting constructs and common scripting patterns

Book Description

Shell scripts allow us to program commands in chains and have the system execute them as a scripted event, just like batch files. This book will start with an overview of Linux and Bash shell scripting, and then quickly deep dive into helping you set up your local environment, before introducing you to tools that are used to write shell scripts. The next set of chapters will focus on helping you understand Linux under the hood and what Bash provides the user. Soon, you will have embarked on your journey along the command line. You will now begin writing actual scripts instead of commands, and will be introduced to practical applications for scripts. The final set of chapters will deep dive into the more advanced topics in shell scripting. These advanced topics will take you from simple scripts to reusable, valuable programs that exist in the real world. The final chapter will leave you with some handy tips and tricks and, as regards the most frequently used commands, a cheat sheet containing the most interesting flags and options will also be provided. After completing this book, you should feel confident about starting your own shell scripting projects, no matter how simple or complex the task previously seemed. We aim to teach you how to script and what to consider, to complement the clear-cut patterns that you can use in your daily scripting challenges. What you will learn

- Understand Linux and Bash basics as well as shell scripting fundamentals
- Learn to write simple shell scripts that interact with Linux operating system
- Build, maintain, and deploy scripts in a Linux environment
- Learn best practices for writing shell scripts
- Avoid common pitfalls associated with Bash scripting
- Gain experience and the right toolset to write your own complex shell scripts

Who this book is for

This book targets new and existing Linux system administrators, Windows system administrators or developers who are interested in automating administrative tasks. No prior shell scripting experience is needed but in case you do this book will make a pro quickly. Readers should have a basic understanding of the command line.

Summary

Learn Linux in a Month of Lunches shows you how to install and use Linux for all the things you do with your OS, like connecting to a network, installing software, and securing your system. Whether you're just curious about Linux or have to get up and running for your job, you'll appreciate how this book concentrates on the tasks you need to know how to do in 23 easy lessons. About the Technology

If you've only used Windows or Mac OS X, you may be daunted by the Linux operating system. And yet learning Linux doesn't have to be hard, and the payoff is great. Linux is secure, flexible, and free. It's less susceptible to malicious attacks, and when it is attacked, patches are available quickly. If you don't like the way it looks or behaves, you can change it. And best of all, Linux allows users access to different desktop interfaces and loads of software, almost all of it completely free. About the Book

Learn Linux in a Month of Lunches shows you how to install and use Linux for all the things you do with your OS, like connecting to a network, installing software, and securing your system. Whether you're just curious about Linux or need it for your job, you'll appreciate how this book focuses on just the tasks you need to learn. In easy-to-follow lessons designed to take an hour or less, you'll learn how to use the command line, along with practical topics like installing software,
customizing your desktop, printing, and even basic networking. You'll find a road map to the
commands and processes you need to be instantly productive. What's Inside Master the
command line Learn about file systems Understand desktop environments Go from Linux
novice to expert in just one month About the Reader This book is for anyone looking to learn
how to use Linux. No previous Linux experience required. About the Author Steven Ovadia is a
professor and librarian at LaGuardia Community College, CUNY. He curates The Linux Setup,
a large collection of interviews with desktop Linux users, and writes for assorted library science
journals. Table of Contents PART 1 - GETTING LINUX UP AND RUNNING Before you begin
Getting to know Linux Installing Linux Getting to know your system Desktop environments
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on the command line Working with common command-line applications, part 1 Working with
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the Linux filesystem hierarchy Windows programs in Linux Establishing a workflow PART 3 -
HOME SYSTEM ADMIN ON LINUX An in-depth look at package management and
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Printing Version control for non-programmers Never the end
A Bourne Shell Programming/Scripting Tutorial for learning about using the Unix shell. Learn
Linux / Unix shell scripting by example along with the theory. We'll have you mastering Unix
shell scripting in no time! This thorough yet practical tutorial with examples throughout has
been written with extensive feedback from literally hundreds of students and professionals in
the field, both with and without a Unix or Linux background. From the author of the Wiley book
"Shell Scripting - Expert Recipes for Bash, Linux and more" and of "How to Build a LAMP
Server," this is his best-read and most popular work to date.
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.
Linux has been one of the widely adopted and popular OS when it comes to leveraging
scripting and automating common tasks. With this book, readers will get to grips with shell
scripting, automating repetitive tasks, text processing, regular expressions, pattern matching,
backup and restore, and much more. The end goal of this book is to get ...
For system administrators, programmers, and end users, shell command or carefully crafted
shell script can save you time and effort, or facilitate consistency and repeatability for a variety
of common tasks. This cookbook provides more than 300 practical recipes for using bash, the
popular Unix shell that enables you to harness and customize the power of any Unix or Linux
system. Ideal for new and experienced users alike—including proficient Windows users and
sysadmins—this updated second edition helps you solve a wide range of problems. You’ll learn
ways to handle input/output, file manipulation, program execution, administrative tasks, and
many other challenges. Each recipe includes one or more scripting examples and a discussion
of why the solution works. You’ll find recipes for problems including: Standard output and
input, and executing commands Shell variables, shell logic, and arithmetic Intermediate shell
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 Implementing system-wide shell customization and features related to system security
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

Learning the Bash ShellUnix Shell Programming"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.

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 bccash, 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.

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.

Unix Shell Programming is a tutorial aimed at helping Unix and Linux users get optimal performance out of their operating system. It shows them how to take control of their systems and work efficiently by harnessing the power of the shell to solve common problems. The reader learns everything he or she needs to know to customize the way a Unix system responds. The vast majority of Unix users utilize the Korn shell or some variant of the Bourne shell, such as bash. Three are covered in the third edition of Unix Shell Programming. It begins with a generalized tutorial of Unix and tools and then moves into detailed coverage of shell programming. Topics covered include: regular expressions, the kernel and the utilities, command files, parameters, manipulating text filters, understanding and debugging shell scripts, creating and utilizing variables, tools, processes, and customizing the shell.

A compendium of shell scripting recipes that can immediately be used, adjusted, and applied. The shell is the primary way of communicating with the Unix and Linux systems, providing a direct way to program by automating simple-to-intermediate tasks. With this book, Linux expert Steve Parker shares a collection of shell scripting recipes that can be used as is or easily modified for a variety of environments or situations. The book covers shell programming, with a focus on Linux and the Bash shell; it provides credible, real-world relevance, as well as providing the flexible tools to get started immediately. Shares a collection of helpful shell scripting recipes that can immediately be used for various of real-world challenges. Features recipes for system tools, shell features, and systems administration. Provides a host of plug and play recipes for to immediately apply and easily modify so the wheel doesn't have to be reinvented with each challenge faced. Come out of your shell and dive into this collection of tried and tested shell scripting recipes that you can start using right away! 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"