

Linux Kernel Development 4th Edition

Featuring contributions from prominent thinkers and researchers, this volume in the "Advances in Management Information Systems" series provides a rich set of conceptual, empirical, and introspective studies that epitomize fundamental knowledge in the area of Business Process Transformation. Processes are interpreted broadly to include operational and managerial processes within and between organizations, as well as those involved in knowledge generation. Transformation includes radical and incremental change, its conduct, management, and outcome. The editors and contributing authors pay close attention to the role of IS organizations and information technologies in facilitating business process transformation. Each chapter places major emphasis on clearly articulating the "knowledge" generated, both theoretical and applied. The book incorporates case studies and tables throughout, and provides fundamental grounding for any stakeholder of business process transformation.

Whether you are active in security management or studying for the CISSP exam, you need accurate information you can trust. A practical reference and study guide, Information Security Management Handbook, Fourth Edition, Volume 3 prepares you not only for the CISSP exam, but also for your work as a professional. From cover to cover the book gives you the information you need to understand the exam's core subjects. Providing an overview of the information security arena, each chapter presents a wealth of technical detail. The changes in the technology of information security and the increasing threats to security from open systems make a complete and up-to-date understanding of this material essential. Volume 3 supplements the information in the earlier volumes of this handbook, updating it and keeping it current. There is no duplication of material between any of the three volumes. Because the knowledge required to master information security - the Common Body of Knowledge (CBK) - is growing so quickly, it requires frequent updates. As a study guide or resource that you can use on the job, Information Security Management Handbook, Fourth Edition, Volume 3 is the book you will refer to over and over again.

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.

This book explores the question of whether software should be patented. It analyses the ways in which the courts of the US, the EU, and Australia have attempted to deal with the problems surrounding the patentability of software and describes why it is that the software patent issue should be dealt with as a patentable subject matter issue, rather than as an issue of novelty or nonobviousness. Anton Hughes demonstrates that the current approach has failed and that a fresh approach to the software patent problem is needed. The book goes on to argue against the patentability of software based on its close relationship to mathematics. Drawing on historical and philosophical accounts of mathematics in pursuit of a better understanding of its nature and focusing the debate on the conditions necessary for mathematical advancement, the author puts forward an analytical framework centred around the concept of the useful arts. This analysis both explains mathematics', and therefore software's, nonpatentability and offers a theory of patentable subject matter consistent with Australian, American, and European patent law.

After authoring a best-selling text in India, Dhananjay Dhamdhere has written Operating Systems, and it includes precise definitions and clear explanations of fundamental concepts, which makes this text an excellent text for the first course in operating systems. Concepts, techniques, and case studies are well integrated so many design and implementation details look obvious to the student. Exceptionally clear explanations of concepts are offered, and coverage of both fundamentals and such cutting-edge material like encryption and security is included. The numerous case studies are tied firmly to real-world experiences with operating systems that students will likely encounter.

Explains how to install and configure Linux, how to run productivity tools, how to burn CDs and synchronize a PalmPilot, how to set up software, how to configure a network, and how to use the system administration tools.

The Architecture of Computer Hardware, Systems Software and Networking is designed help students majoring in information technology (IT) and information systems (IS) understand the structure and operation of computers and computer-based devices. Requiring only basic computer skills, this accessible textbook introduces the basic principles of system architecture and explores current technological practices and trends using clear, easy-to-understand language. Throughout the text, numerous relatable examples, subject-specific illustrations, and in-depth case studies reinforce key learning points and show students how important concepts are applied in the real world. This fully-updated sixth edition features a wealth of new and revised content that reflects today's technological landscape. Organized into five parts, the book first explains the role of the computer in information systems and provides an overview of its components. Subsequent sections discuss the representation of data in the computer, hardware architecture and operational concepts, the basics of computer networking, system software and operating systems, and various interconnected systems and components. Students are introduced to the material using ideas already familiar to them, allowing them to gradually build upon what they have learned without being overwhelmed and develop a deeper knowledge of computer architecture.

This is the eBook of the printed book and may not include any media, website access codes, or print supplements that may come packaged with the bound book. Ubuntu Unleashed 2017 Edition is filled with unique and advanced information for everyone who wants to make the most of the Ubuntu Linux operating system, including the latest in Ubuntu mobile development. This new edition has been thoroughly updated by a long-time Ubuntu community leader to reflect the exciting new Ubuntu 16.10 and the forthcoming Ubuntu 17.04 and 17.08. Helmke presents up-to-the-minute introductions to Ubuntu's key productivity and Web development tools, programming languages, hardware support, and more. This book will now be part of CUPs (the Content Update Program). Former Ubuntu Forum administrator Matthew Helmke covers all you need to know about Ubuntu 16.10 installation, configuration, productivity, multimedia, development,

system administration, server operations, networking, virtualization, security, DevOps, and more—including intermediate-to-advanced techniques you won't find in any other book. Helmke presents up-to-the-minute introductions to Ubuntu's key productivity and Web development tools, programming languages, hardware support, and more. You'll find new or improved coverage of Ubuntu's Unity interface, various types of servers, software repositories, database options, virtualization and cloud services, development tools, monitoring, troubleshooting, Ubuntu's push into mobile and other touch screen devices, and much more

A guide to the Java Desktop System covers such topics as networking, email, instant messaging, spreadsheets, word processing, and slide presentations.

In order to thoroughly understand what makes Linux tick and why it works so well on a wide variety of systems, you need to delve deep into the heart of the kernel. The kernel handles all interactions between the CPU and the external world, and determines which programs will share processor time, in what order. It manages limited memory so well that hundreds of processes can share the system efficiently, and expertly organizes data transfers so that the CPU isn't kept waiting any longer than necessary for the relatively slow disks. The third edition of Understanding the Linux Kernel takes you on a guided tour of the most significant data structures, algorithms, and programming tricks used in the kernel. Probing beyond superficial features, the authors offer valuable insights to people who want to know how things really work inside their machine. Important Intel-specific features are discussed. Relevant segments of code are dissected line by line. But the book covers more than just the functioning of the code; it explains the theoretical underpinnings of why Linux does things the way it does. This edition of the book covers Version 2.6, which has seen significant changes to nearly every kernel subsystem, particularly in the areas of memory management and block devices. The book focuses on the following topics: Memory management, including file buffering, process swapping, and Direct memory Access (DMA) The Virtual Filesystem layer and the Second and Third Extended Filesystems Process creation and scheduling Signals, interrupts, and the essential interfaces to device drivers Timing Synchronization within the kernel Interprocess Communication (IPC) Program execution Understanding the Linux Kernel will acquaint you with all the inner workings of Linux, but it's 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. This book will help you make the most of your Linux system.

Find an introduction to the architecture, concepts and algorithms of the Linux kernel in Professional Linux Kernel Architecture, a guide to the kernel sources and large number of connections among subsystems. Find an introduction to the relevant structures and functions exported by the kernel to userland, understand the theoretical and conceptual aspects of the Linux kernel and Unix derivatives, and gain a deeper understanding of the kernel. Learn how to reduce the vast amount of information contained in the kernel sources and obtain the skills necessary to understand the kernel sources.

Law of the Internet, Fourth Edition is a two-volume up-to-date legal resource covering electronic commerce and online contracts, privacy and network security, intellectual property and online content management, secure electronic transactions, cryptography, and digital signatures, protecting intellectual property online through link licenses, frame control and other methods, online financial services and securities transactions, antitrust and other liability. The Law of the Internet, Fourth Edition quickly and easily gives you everything you need to provide expert counsel on: Privacy laws and the Internet Ensuring secure electronic transactions, cryptography, and digital signatures Protecting intellectual property online - patents, trademarks, and copyright Electronic commerce and contracting Online financial services and electronic payments Antitrust issues, including pricing, bundling and tying Internal network security Taxation of electronic commerce Jurisdiction in Cyberspace Defamation and the Internet Obscene and indecent materials on the Internet Regulation of Internet access and interoperability The authors George B. Delta and Jeffrey H. Matsuura -- two Internet legal experts who advise America's top high-tech companies -- demonstrate exactly how courts, legislators and treaties expand traditional law into the new context of the Internet and its commercial applications, with all the citations you'll need. The Law of the Internet also brings you up to date on all of the recent legal, commercial, and technical issues surrounding the Internet and provides you with the knowledge to thrive in the digital marketplace. Special features of this two-volume resource include timesaving checklists and references to online resources.

Chosen by BookAuthority as one of BookAuthority's Best Linux Mint Books of All Time Linux: The Textbook, Second Edition provides comprehensive coverage of the contemporary use of the Linux operating system for every level of student or practitioner, from beginners to advanced users. The text clearly illustrates system-specific commands and features using Debian-family Debian, Ubuntu, and Linux Mint, and RHEL-family CentOS, and stresses universal commands and features that are critical to all Linux distributions. The second edition of the book includes extensive updates and new chapters on system administration for desktop, stand-alone PCs, and server-class computers; API for system programming, including thread programming with pthreads; virtualization methodologies; and an extensive tutorial on systemd service management. Brand new online content on the CRC Press website includes an instructor's workbook, test bank, and In-Chapter exercise solutions, as well as full downloadable chapters on Python Version 3.5 programming, ZFS, TC shell programming, advanced system programming, and more. An author-hosted GitHub website also features updates, further references, and errata. Features New or updated coverage of file system, sorting, regular expressions, directory and file searching, file compression and encryption, shell scripting, system programming, client-server-based network programming, thread programming with pthreads, and system administration Extensive in-text pedagogy, including chapter objectives, student projects, and basic and advanced student exercises for every chapter Expansive electronic downloads offer advanced content on Python, ZFS, TC shell scripting, advanced system programming, internetworking with Linux TCP/IP, and many more topics, all featured on the CRC Press website Downloadable test bank, workbook, and solutions available for instructors on the CRC Press website Author-maintained GitHub repository provides other resources, such as live links to further references, updates, and errata

Gray zeroes right in on the key techniques of processes and interprocess communication from primitive communications to the complexities of sockets. The book covers every aspect of UNIX/Linux interprocess communications in sufficient detail to allow experienced programmers to begin writing useful code immediately.

Best-selling guide to the inner workings of the Linux operating system with over 50,000 copies sold since its original release in 2014. Linux for the Superuser Unlike some operating systems,

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

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

You'll also explore the kernel and examine key system tasks inside user-space processes, including system calls, input and output, and filesystem maintenance. With its combination of background, theory, real-world examples, and thorough explanations, *How Linux Works*, 3rd Edition will teach you what you need to know to take control of your operating system. **NEW TO THIS EDITION:**

- Hands-on coverage of the LVM, journald logging system, and IPv6
- Additional chapter on virtualization, featuring containers and cgroups
- Expanded discussion of systemd

Covers systemd-based installations

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. Presents an introduction to Objective-C, covering such topics as classes and objects, data types, program looping, inheritance, polymorphism, variables, memory management, and archiving. *Ubuntu Unleashed 2014 Edition* is filled with unique and advanced information for everyone who wants to make the most of the Linux-based Ubuntu operating system. This new edition has been thoroughly revised and updated by a long-time Ubuntu community leader to reflect the exciting new Ubuntu 13.10 and the forthcoming Ubuntu 14.04. Former Ubuntu Forum administrator Matthew Helmke covers all you need to know about Ubuntu 13.10/14.04 installation, configuration, productivity, multimedia, development, system administration, server operations, networking, virtualization, security, DevOps, and more—including intermediate-to-advanced techniques you won't find in any other book. Helmke presents up-to-the-minute introductions to Ubuntu's key productivity and Web development tools, programming languages, hardware support, and more. You'll find new or improved coverage of Ubuntu's Unity interface, various types of servers, software repositories, database options, virtualization and cloud services, development tools, monitoring, troubleshooting, Ubuntu's push into mobile and other touch screen devices, and much more. Matthew Helmke served from 2006 to 2011 on the Ubuntu Forum Council, providing leadership and oversight of the Ubuntu Forums, and spent two years on the Ubuntu regional membership approval board for Europe, the Middle East, and Africa. He has written about Ubuntu for several magazines and websites and is the lead author of *The Official Ubuntu Book*. He works for Pearson Education writing technical documentation for educational testing software. Detailed information on how to... Configure and customize the Unity desktop Get started with multimedia and productivity applications, including LibreOffice Manage Linux services, users, and software packages Administer and run Ubuntu from the command line Automate tasks and use shell scripting Provide secure remote access and configure a secure VPN Manage kernels and modules Administer file, print, email, proxy, LDAP, DNS, and HTTP servers (Apache, Nginx, or alternatives) Learn about new options for managing large numbers of servers Work with databases (both SQL and the newest NoSQL alternatives) Get started with virtualization Build a private cloud with Juju and Charms Learn the basics about popular programming languages including Python, PHP, Perl, and new alternatives such as Go and Rust Learn about Ubuntu's work toward usability on touch-screen and phone devices Ubuntu 13.10 on DVD DVD includes the full Ubuntu 13.10 distribution for Intel x86 computers as well as the complete LibreOffice office suite and hundreds of additional programs and utilities. Free Kick Start Chapter! Purchase this book and receive a free Ubuntu 14.04 Kick Start chapter after Ubuntu 14.04 is released. See inside back cover for details

Harness the power of Linux to create versatile and robust embedded solutions About This Book Create efficient and secure embedded devices using Linux Minimize project costs by using open source tools and programs Explore each component technology in depth, using sample implementations as a guide Who This Book Is For This book is ideal for Linux developers and system programmers who are already familiar with embedded systems and who want to know how to create best-in-class devices. A basic understanding of C programming and experience with systems programming is needed. What You Will Learn Understand the role of the Linux kernel and select an appropriate role for your application Use Buildroot and Yocto to create embedded Linux systems quickly and efficiently Create customized bootloaders using U-Boot Employ perf and ftrace to identify performance bottlenecks Understand device trees and make changes to accommodate new hardware on your device Write applications that interact with Linux device drivers Design and write multi-threaded applications using POSIX threads Measure real-time latencies and tune the Linux kernel to minimize them In Detail Mastering Embedded Linux Programming takes you through the product cycle and gives you an in-depth description of the components and options that are available at each stage. You will begin by learning about toolchains, bootloaders, the Linux kernel, and how to configure a root filesystem to create a basic working device. You will then learn how to use the two most commonly used build systems, Buildroot and Yocto, to speed up and simplify the development process. Building on this solid base, the next section considers how to make best use of raw NAND/NOR flash memory and managed flash eMMC chips, including mechanisms for increasing the lifetime of the devices and to perform reliable in-field updates. Next, you need to consider what techniques are best suited to writing applications for your device. We will then see how functions are split between processes and the usage of POSIX threads, which have a big impact on the responsiveness and performance of the final device The closing sections look at the techniques available to developers for

profiling and tracing applications and kernel code using perf and ftrace. Style and approach This book is an easy-to-follow and pragmatic guide consisting of an in-depth analysis of the implementation of embedded devices. Each topic has a logical approach to it; this coupled with hints and best practices helps you understand embedded Linux better.

Provides information on writing a driver in Linux, covering such topics as character devices, network interfaces, driver debugging, concurrency, and interrupts.

This book is perfect for hardware enthusiasts who want to develop amazing projects using Raspberry Pi. Some knowledge and experience working with Linux, C, and Python is a plus, but once you're set up to go, you'll be ready to push the creative capabilities of your Raspberry Pi even further.

The Linux Programming Interface (TLPI) is the definitive guide to the Linux and UNIX programming interface—the interface employed by nearly every application that runs on a Linux or UNIX system. In this authoritative work, Linux programming expert Michael Kerrisk provides detailed descriptions of the system calls and library functions that you need in order to master the craft of system programming, and accompanies his explanations with clear, complete example programs. You'll find descriptions of over 500 system calls and library functions, and more than 200 example programs, 88 tables, and 115 diagrams. You'll learn how to: –Read and write files efficiently –Use signals, clocks, and timers –Create processes and execute programs –Write secure programs –Write multithreaded programs using POSIX threads –Build and use shared libraries –Perform interprocess communication using pipes, message queues, shared memory, and semaphores –Write network applications with the sockets API While The Linux Programming Interface covers a wealth of Linux-specific features, including epoll, inotify, and the /proc file system, its emphasis on UNIX standards (POSIX.1-2001/SUSv3 and POSIX.1-2008/SUSv4) makes it equally valuable to programmers working on other UNIX platforms. The Linux Programming Interface is the most comprehensive single-volume work on the Linux and UNIX programming interface, and a book that's destined to become a new classic.

Though network security has almost always been about encryption and decryption, the field of network security is moving towards securing the network environment rather than just stored or transferred data. Privacy, Intrusion Detection and Response: Technologies for Protecting Networks explores the latest practices and research works in the area of privacy, intrusion detection, and response. Increased interest on intrusion detection together with prevention and response proves that protecting data either in the storage or during transfer is necessary, but not sufficient, for the security of a network. This book discusses the latest trends and developments in network security and privacy, and serves as a vital reference for researchers, academics, and practitioners working in the field of privacy, intrusion detection, and response.

Having already helped two generations of programmers explore Linux and write devices, the fourth edition of this classic book delves into tty, USB, and HCI devices such as keyboards, in addition to basic character devices. Linux Device Drivers includes numerous full-featured examples that you can compile and run without special hardware. Written by well-known leaders in Linux development and programming, this book covers significant changes to Version 3.2 of the Linux kernel, the basis of the Precise Pangolin release of Ubuntu. All you need to get started is an understanding of the C programming language and some background in Unix system calls. Learn how to support computer peripherals under the Linux operating system Develop and write software for new hardware that Linux supports Understand the basics of Linux operation, even if you don't expect to write a driver Dive into new chapters on video, audio, wireless, and Bluetooth devices As the operating system for Android and many embedded systems, Linux constantly needs new device drivers. This book helps you get it done.

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

The authoritative guide to the latest Linux kernel: fully updated, with an all-new chapter on kernel data structures. * *Authored by a well-known member of the Linux kernel development team with a reputation for clarity, readability, and insight. *Covers all major subsystems and features of the latest version of the Linux 2.6.xx kernel. *Provides examples based on real kernel code: samples that developers can use to modify and improve the Linux kernel on their own. Linux Kernel Development, 3/e, is a start-to-finish guide to the design and implementation of the latest Linux 2.6.xx kernel, written specifically for programmers who want to understand the existing kernel, write new kernel code, and write software that relies on the kernel's behavior. Author Robert Love is respected worldwide for his contributions to the Linux kernel: contributions that have improved everything from Linux preemption and process scheduling to virtual memory. In this book, he illuminates every major subsystem and feature of the current Linux kernel: their purpose, goals, design, implementation, and programming interfaces. He covers the kernel both from a theoretical and applied standpoint, helping programmers gain deep insights into operating system design as they master the skills of writing Linux kernel code. Love covers all important algorithms, relevant subsystems, process management, scheduling, time management and timers, system call interface, memory addressing, memory management, paging strategies, caching layers, VFS, kernel synchronization,

signals, and more. This edition has been updated throughout to reflect changes since the original Linux kernel 2.6 was released. It also contains an entirely new chapter on kernel data structures.

CD-ROM contains: Linux kernel version 2.4.4, plus sources from other programs and documents from the Linux Documentation Project.

The Internet Encyclopedia in a 3-volume reference work on the internet as a business tool, IT platform, and communications and commerce medium.

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

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Programming in C will teach you how to write programs in the C programming language. Whether you're a novice or experienced programmer, this book will provide you with a clear understanding of this language, which is the foundation for many object-oriented programming languages such as C++, Objective-C, C#, and Java. This book teaches C by example, with complete C programs used to illustrate each new concept along the way. Stephen Kochan provides step-by-step explanations for all C functions. You will learn both the language fundamentals and good programming practices. Exercises at the end of each chapter make the book ideally suited for classroom use or for self-instruction. All the features of the C language are covered in this book, including the latest additions added with the C11 standard. Appendixes provide a detailed summary of the language and the standard C library, both organized for quick reference. "Absolutely the best book for anyone starting out programming in C. This is an excellent introductory text with frequent examples and good text....This is the book I used to learn C—it's a great book." —Vinit S. Carpenter, *Learn C/C++ Today*

Readers examine two of the most prominent operating systems -- Windows 10 and Linux CentOS7 -- in parallel with the unique approach found only in *GUIDE TO PARALLEL OPERATING SYSTEMS WITH WINDOWS 10 AND LINUX, 3E*. Rather than using a compare and contrast model, the book presents each topic conceptually before demonstrating it simultaneously on both operating systems. Readers can instantly switch between Windows 10 and Linux CentOS 7 to complete the myriad of hands-on activities that reinforce the similarities between the two operating systems for each conceptual task. The text's virtualization approach provides flexibility that enables readers to use Microsoft Hyper-V Client, Oracle VirtualBox, or VMWare Workstation. This comprehensive guide helps users develop the competencies needed in Windows 10 and Linux to maximize success in today's classroom or tomorrow's business environment. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.

Market_Desc: · Hobbyists · Students · Enterprise professionals
Special Features: · Market Leader: *Beginning Linux Programming* has been the best-selling entry level Linux programming book on the market for the past five years with over 36,000 net sales· It delivers on the programmer to programmer promise· Most current coverage on GNOME 2.16 and the Linux Kernel 2.6.19· Revised material: Covering GNOME, KDE and the Kernel in addition to device drivers, MySQL, POSIX, Qt and more
About The Book: Building on the proven success of the previous editions *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, the reader learns by doing, and is able to move from being a Linux beginner to creating custom applications in Linux. 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 etc.

Python Essential Reference is the definitive reference guide to the Python programming language — the one authoritative handbook that reliably untangles and explains both the core Python language and the most essential parts of the Python library. Designed for the professional programmer, the book is concise, to the point, and highly accessible. It also includes detailed information on the Python library and many advanced subjects that is not available in either the official Python documentation or any other single reference

