Advanced Programming In The Unix Environment Addison Wesley Professional Computing

Provides the nitty gritty details on how UNIX interacts with applications. Inlcudes many extended examples on topics ranging from string manipulation to network programming

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.

For intermediate to experienced C programmers who want to become UNIX system programmers. Explains system calls and special library routines available on the system. Annotation copyrighted by Book News, Inc., Portland, OR

Bestselling UNIX author Stevens offers application and system programmers his professional, experienced-based guidance on using the system call interface with C. Since good examples are the key to a book like this, a simple shell program is developed in the first chapter and then expanded throughout the book to demonstrate the principles.

UNIX System Programming Using C++

A Programmer's Guide

Code Reading

Systems Programming in Unix/Linux

UNIX System V Network Programming

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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.

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

This book explains in a clear and coherent manner how Unix works, how to understand existing Unix programs, and how to design and create new Unix programs. The book is organized by subsystem, each presented in visual terms and explained using vivid metaphors. It breaks the information into manageable parts that can be presented, explained, and mastered.By using case studies and an extremely reader-friendly manner to illustrate complex ideas and concepts, the book covers the basics of systems programming, users, files and manuals, how to read a directory, using 1S, writing PWD, studying STTY, writing a video game, studying SH, environment and shell variables, I/O redirection and pipes, servers and sockets, writing a web server, license servers, and concurrent functions.For Unix system administrators and programmers, network programmers, and others who have used other operating systems and need to learn Unix programming to expand their skill sets.

Advanced Programmer's Guide to UNIX System V

A Linux and UNIX System Programming Handbook

21st Century C

Advanced C Programming for Displays

The Linux Programming Interface

The Art of UNIX Programming

Contains an introduction to the operating system with detailed documentation on commands, utilities, programs, system configuration, and networking.

"This book is organized around three concepts fundamental to OS construction: virtualization (of CPU and memory), concurrency (locks and condition variables), and persistence (disks, RAIDS, and file systems"--Back cover.

Learn to write advanced C programs that are strongly type-checked, compact, and easy to maintain. This book focuses on real-life applications and problem solving in networking, database development, compilers, operating systems, and CAD.

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

A Guide to System Programming

A Distribution-Neutral Guide for Servers and Desktops

TCP/IP Illustrated

UNIX Systems Programming

Advanced Programming in the UNIX Environment □□□□

What Every Superuser Should Know

The new third edition of Advanced Programming in the UNIX(R) Environment supports today's leading platforms, reflects new technical advances and best practices, and aligns with Version 4 of the Single UNIX Specification. This valuable tool begins with files, directories, and processes, carefully laying the groundwork for more advanced techniques, such as signal handling and terminal I/O then thoroughly covers threads and multithreaded programming, and socket-based IPC. This edition covers more than seventy new interfaces, including POSIX asynchronous I/O, spin locks, barriers, and POSIX semaphores. Students are given examples, including more than ten thousand lines of downloadable, ISO C source code. More than four hundred system calls and functions are demonstrated with concise, complete programs that clearly illustrate their usage, arguments, and return values. To tie together what they've learned, the book presents several chapter-length case studies, each reflecting contemporary environments.

"UNIX Programming" is designed to enable readers to get the most out of the UNIX programming libraries. It shows readers how to master the UNIX static and runtime libraries, develop creative designs, and write successful and portable code. The material organization makes it a useful reference tool.

Covering all aspects of the Unix operating system and assuming no prior knowledge of Unix, this book begins with the fundamentals and works from the ground up to some of the more advanced programming techniques The authors provide a wealth of real-world experience with the Unix operating system, delivering actual examples while showing some of the common misconceptions and errors that new users make Special emphasis is placed on the Apple Mac OS X environment as well as Linux, Solaris, and migrating from Windows to Unix A unique conversion section of the book details specific advice and instructions for transitioning Mac OS X, Windows, and Linux users

Advanced Programming in the UNIX EnvironmentPearson Education

Advanced Linux Programming

How Linux Works, 2nd Edition

Linux System Programming

Communication, Concurrency, and Threads

Beginning Unix

C Tips from the New School

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

Software -- Operating Systems.

TCP/IP Illustrated, Volume 1, Second Edition, is a detailed and visual guide to today's TCP/IP protocol suite. Fully updated for the newest innovations, it demonstrates each protocol in action through realistic examples from modern Linux, Windows, and Mac OS environments. There's no better way to discover why TCP/IP works as it does, how it reacts to common conditions, and how to apply it in your own applications and networks. Building on the late W. Richard Stevens' classic first edition, author Kevin R. Fall adds his cutting-edge experience as a leader in TCP/IP protocol research, updating the book to fully reflect the latest protocols and best practices.

bull; Learn UNIX essentials with a concentration on communication, concurrency, and multithreading techniques bull; Full of ideas on how to design and implement good software along with unique projects throughout bull; Excellent companion to Stevens' Advanced UNIX System Programming

Introduction to Data Science

Operating Systems

Advanced Programming in the UNIX ® Environment

The Open Source Perspective

Advanced programming in the UNIX environment國際中文版

Understanding Unix/Linux Programming

"Steve Rago offers valuable insights into the kernel-level features of SVR4 not covered elsewhere; I think readers will especially appreciate the coverage of STREAMS, TLI, and SLIP." - W. Richard Stevens, author of UNIX Network Programming, Advanced Programming in the UNIX Environment, TCP/IP Illustrated Volume 1, and TCP/IP Illustrated Volume 2 Finally, with UNIX(R) System V Network Programming, an authoritative reference is available for programmers and system architects interested in building networked and distributed applications for UNIX System V. Even if you currently use a different version of the UNIX system, such as the latest release of 4.3BSD or SunOS, this book is valuable to you because it is centered around UNIX System V Release 4, the version of the UNIX system that unified many of the divergent UNIX implementations. For those professionals new to networking and UNIX system programming, two introductory chapters are provided. The author then presents the programming interfaces most important to building communication software in System V, including STREAMS, the Transport Layer Interface library, Sockets, and Remote Procedure Calls. So that your designs are not limited to user-level, the author also explains how to write kernel-level communication software, including STREAMS drivers, modules, and multiplexors. Many examples are provided, including an Ethernet driver and a transport-level multiplexing driver. In the final chapter, the author brings the material from previous chapters together, presenting the design of a SLIP communication package. 0201563185B04062001

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

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

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

Building a Secure Computer System

UNIX Systems Programming for SVR4

Advanced Programming in the Unix Environment

Advanced UNIX

UNIX??????

Character Displays, Windows, and Keyboards for the UNIX and MS-DOS Operating Systems

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

While there are several books on programming for Mac OS X, Advanced Mac OS X Programming: The Big Nerd Ranch Guide is the only one that contains explanations of how to leverage the powerful underlying technologies. This book gets down to the real nitty-gritty. The third edition is updated for Mac OS X 10.5 and 10.6 and covers new technologies like DTrace, Instruments, Grand Central Dispatch, blocks, and NSOperation.

Software -- Programming Languages.

Little prior knowledge is needed to use this long-needed reference. Computer professionals and software engineers will learn how to design secure operating systems, networks and applications.

Linux in a Nutshell

The Design of the UNIX Operating System

Running Linux

Programming with POSIX Threads

Three Easy Pieces

Advanced Mac OS X Programming

The classic guide to UNIX® programming-completely updated! UNIX application programming requires a mastery of system-level services. Making sense of the many functions-more than 1,100 functions in the current UNIX specification-is a daunting task, so for years programmers have turned to Advanced UNIX Programming for its clear, expert advice on how to use the key functions reliably. An enormous number of changes have taken place in the UNIX environment since the landmark first edition. In Advanced UNIX Programming, Second Edition, UNIX pioneer Marc J. Rochkind brings the book fully up to date, with all-new, comprehensive coverage including: POSIX Solaris™ Linux® FreeBSD Darwin, the Mac™ OS X kernel And more than 200 new system calls Rochkind's fully updated classic explains all the UNIX system calls you're likely to need, all in a single volume! Interprocess communication, networking (sockets), pseudo terminals, asynchronous I/O, advanced signals, realtime, and threads Covers the system calls you'll actually use-no need to plow through hundreds of improperly implemented, obsolete, and otherwise unnecessary system calls! Thousands of lines of example code include a Web browser and server, a keystroke recorder/player, and a shell complete with pipelines, redirection, and background processes Emphasis on the practical-ensuring portability, avoiding pitfalls, and much more! Since 1985, the one book to have for mastering UNIX application programming has been Rochkind's Advanced UNIX Programming. Now completely updated, the second edition remains the choice for up-to-the-minute, in-depth coverage of the essential system-level services of the UNIX family of operating systems.

Throw out your old ideas about C and get to know a programming language that's substantially outgrown its origins. With this revised edition of 21st Century C, you'll discover up-to-date techniques missing from other C tutorials, whether you're new to the language or just getting reacquainted. C isn't just the foundation of modern programming languages; it is a modern language, ideal for writing efficient, state-of-the-art applications. Get past idioms that made sense on mainframes and learn the tools you need to work with this evolved and aggressively simple language. No matter what programming language you currently favor, you'll quickly see that 21st century C rocks. Set up a C programming environment with shell facilities, makefiles, text editors, debuggers, and memory checkers Use Autotools, C's de facto cross-platform package manager Learn about the problematic C concepts too useful to discard Solve C's string-building problems with C-standard functions Use modern syntactic features for functions that take structured inputs Build high-level, object-based libraries and programs Perform advanced math, talk to internet servers, and run databases with existing C libraries This edition also includes new material on concurrent threads, virtual tables, C99 numeric types, and other features.

CD-ROM contains cross-referenced code.

Introduction to Data Science: Data Analysis and Prediction Algorithms with R introduces concepts and skills that can help you tackle real-world data analysis challenges. It covers concepts from probability, statistical inference, linear regression, and machine learning. It also helps you develop skills such as R programming, data wrangling, data visualization, predictive algorithm building, file organization with UNIX/Linux shell, version control with Git and GitHub, and reproducible document preparation. This book is a textbook for a first course in data science. No previous knowledge of R is necessary, although some experience with programming may be helpful. The book is divided into six parts: R, data visualization, statistics with R, data wrangling, machine learning, and productivity tools. Each part has several chapters meant to be presented as one lecture. The author uses motivating case studies that realistically mimic a data scientist's experience. He starts by asking specific questions and answers these through data analysis so concepts are learned as a means to answering the questions. Examples of the case studies included are: US murder rates by state, self-reported student heights, trends in world health and economics, the impact of vaccines on infectious disease rates, the financial crisis of 2007-2008, election forecasting, building a baseball team, image processing of hand-written digits, and movie recommendation systems. The statistical concepts used to answer the case study questions are only briefly introduced, so complementing with a probability and statistics textbook is highly recommended for in-depth understanding of these concepts. If you read and understand the chapters and complete the exercises, you will be prepared to learn the more advanced concepts and skills needed to become an expert.

Talking Directly to the Kernel and C Library

The UNIX Programming Environment

Advanced UNIX Programming

Advanced Programming in the UNIX Environment

The Big Nerd Ranch Guide

The AWK Programming Language