

Linux Kernel Documentation

Linux Kernel and Driver Development - Practical Labs
Linux Kernel Development API Design for C++
LPIC-2 Linux Professional Institute Certification Study Guide
Hands-On System Programming with Linux
Linux Network Administrator's Guide
Understanding the Linux Virtual Memory Manager
Essential Linux Device Drivers
The Linux Programming Interface
FreeBSD Architecture Handbook
LPIC-2: Linux Professional Institute Certification Study Guide
Linux Device Drivers: The Design and Implementation of the 4.3BSD UNIX Operating System
Professional Linux Kernel Architecture
UNIX Internals
Linux Kernel Networking
The Linux Kernel Module Programming Guide
Linux Device Drivers
Understanding the Linux Kernel
Building Embedded Linux Systems
Advanced Bash Scripting Guide
Bash Guide for Beginners (Second Edition)
Introduction to Linux (Second Edition)
Practical C++ Programming
FreeBSD Handbook
Linux Kernel Internals
Linux Device Driver Development Cookbook
Slackware Linux Essentials
Embedded Linux Primer
Building Modern Networks
The Linux Networking Architecture
Linux Kernel in a Nutshell
UNIX Systems for Modern Architectures
Lions' Commentary on UNIX 6th Edition with Source Code
The Linux Kernel Book
Linux Essentials for Cybersecurity
Linux Kernel in a Nutshell
Understanding Linux Network Internals
The Complete FreeBSD
The Linux Kernel Primer

Linux Kernel and Driver Development - Practical Labs

This covers the internal structure of the 4.3BSD systems and the concepts, data structures and algorithms used in implementing the system facilities. Also includes a chapter on TCP/IP.

Linux Kernel Development

Full coverage of the latest LPI-level 2 exams, with bonus online test bank LPIC-2 is the one-stop preparation resource for the Linux Professional Institute's Advanced Level certification exam. With 100 percent coverage of all exam objectives, this book provides clear and concise coverage of the Linux administration topics you'll need to know for exams 201 and 202. Practical examples highlight the real-world applications of important concepts, and together, the author team provides insights based on almost fifty years in the IT industry. This brand new second edition has been completely revamped to align with the latest versions of the exams, with authoritative coverage of the Linux kernel, system startup, advanced storage, network configuration, system maintenance, web services, security, troubleshooting, and more. You also get access to online learning tools including electronic flashcards, chapter tests, practice exams, and a glossary of critical terms to help you solidify your understanding of upper-level Linux administration topics. The LPI-level 2 certification confirms your advanced Linux skill set, and the demand for qualified professionals continues to grow. This book gives you the conceptual guidance and hands-on practice you need to pass the exam with flying colors. Understand all of the material for both LPIC-2 exams Gain insight into real-world applications Test your knowledge with chapter tests and practice exams Access online study aids for more thorough preparation Organizations are flocking to the open-source Linux as an excellent, low-cost, secure alternative to expensive

operating systems like Microsoft Windows. As the Linux market share continues to climb, organizations are scrambling to find network and server administrators with expert Linux knowledge and highly practical skills. The LPI-level 2 certification makes you the professional they need, and LPIC-2 is your ideal guide to getting there.

API Design for C++

Linux® is being adopted by an increasing number of embedded systems developers, who have been won over by its sophisticated scheduling and networking, its cost-free license, its open development model, and the support offered by rich and powerful programming tools. While there is a great deal of hype surrounding the use of Linux in embedded systems, there is not a lot of practical information. *Building Embedded Linux Systems* is the first in-depth, hard-core guide to putting together an embedded system based on the Linux kernel. This indispensable book features arcane and previously undocumented procedures for:

- Building your own GNU development toolchain
- Using an efficient embedded development framework
- Selecting, configuring, building, and installing a target-specific kernel
- Creating a complete target root filesystem
- Setting up, manipulating, and using solid-state storage devices
- Installing and configuring a bootloader for the target
- Cross-compiling a slew of utilities and packages
- Debugging your embedded system using a plethora of tools and techniques

Details are provided for various target architectures and hardware configurations, including a thorough review of Linux's support for embedded hardware. All explanations rely on the use of open source and free software packages. By presenting how to build the operating system components from pristine sources and how to find more documentation or help, this book greatly simplifies the task of keeping complete control over one's embedded operating system, whether it be for technical or sound financial reasons. Author Karim Yaghmour, a well-known designer and speaker who is responsible for the Linux Trace Toolkit, starts by discussing the strengths and weaknesses of Linux as an embedded operating system. Licensing issues are included, followed by a discussion of the basics of building embedded Linux systems. The configuration, setup, and use of over forty different open source and free software packages commonly used in embedded Linux systems are also covered. uClibc, BusyBox, U-Boot, OpenSSH, tftpd, tftp, strace, and gdb are among the packages discussed.

LPIC-2 Linux Professional Institute Certification Study Guide

To thoroughly understand what makes Linux tick and why it's so efficient, you need to delve deep into the heart of the operating system--into the Linux kernel itself. The kernel is Linux--in the case of the Linux operating system, it's the only bit of software to which the term "Linux" applies. The kernel handles all the requests or completed I/O operations and determines which programs will share its processing time, and in what order. Responsible for the sophisticated memory management of the whole system, the Linux kernel is the force behind the legendary Linux efficiency. The new edition of *Understanding the Linux Kernel* takes you on a guided tour through the most significant data structures, many algorithms, and programming tricks used in the kernel. Probing beyond the superficial features, the authors offer valuable insights to people who want to know how things really work

inside their machine. Relevant segments of code are dissected and discussed line by line. The book covers more than just the functioning of the code, it explains the theoretical underpinnings for why Linux does things the way it does. The new edition of the book has been updated to cover version 2.4 of the kernel, which is quite different from version 2.2: the virtual memory system is entirely new, support for multiprocessor systems is improved, and whole new classes of hardware devices have been added. The authors explore each new feature in detail. Other topics in the book include: Memory management including file buffering, process swapping, and Direct memory Access (DMA) The Virtual Filesystem and the Second Extended Filesystem Process creation and scheduling Signals, interrupts, and the essential interfaces to device drivers Timing Synchronization in the kernel Interprocess Communication (IPC) Program execution Understanding the Linux Kernel, Second Edition will acquaint you with all the inner workings of Linux, but is more than just an academic exercise. You'll learn what conditions bring out Linux's best performance, and you'll see how it meets the challenge of providing good system response during process scheduling, file access, and memory management in a wide variety of environments. If knowledge is power, then this book will help you make the most of your Linux system.

Hands-On System Programming with Linux

API Design for C++ provides a comprehensive discussion of Application Programming Interface (API) development, from initial design through implementation, testing, documentation, release, versioning, maintenance, and deprecation. It is the only book that teaches the strategies of C++ API development, including interface design, versioning, scripting, and plug-in extensibility. Drawing from the author's experience on large scale, collaborative software projects, the text offers practical techniques of API design that produce robust code for the long term. It presents patterns and practices that provide real value to individual developers as well as organizations. API Design for C++ explores often overlooked issues, both technical and non-technical, contributing to successful design decisions that product high quality, robust, and long-lived APIs. It focuses on various API styles and patterns that will allow you to produce elegant and durable libraries. A discussion on testing strategies concentrates on automated API testing techniques rather than attempting to include end-user application testing techniques such as GUI testing, system testing, or manual testing. Each concept is illustrated with extensive C++ code examples, and fully functional examples and working source code for experimentation are available online. This book will be helpful to new programmers who understand the fundamentals of C++ and who want to advance their design skills, as well as to senior engineers and software architects seeking to gain new expertise to complement their existing talents. Three specific groups of readers are targeted: practicing software engineers and architects, technical managers, and students and educators. The only book that teaches the strategies of C++ API development, including design, versioning, documentation, testing, scripting, and extensibility. Extensive code examples illustrate each concept, with fully functional examples and working source code for experimentation available online. Covers various API styles and patterns with a focus on practical and efficient designs for large-scale long-term projects.

Linux Network Administrator's Guide

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

Understanding the Linux Virtual Memory Manager

Written by experts, this unique Linux networking tutorial/reference provides a practical overview and understanding of the implementation of networking protocols in the Linux kernel. The organization of the book follows the TCP/IP layering model, beginning with the kernel's network device drivers, continuing with link-layer protocols such as PPP, and finally giving a description of all core protocols of the TCP/IP protocol family.

Essential Linux Device Drivers

Gain the edge with SDN, NFV, network virtualization, and networking on clouds
About This Book Navigate through the complexities of delivering modern networking services with practical techniques and solutions Build robust software defined networks and solve real-world problems involving challenges with next generation networks Discover the best practices used by top industry professionals for network-related architecture, services, and applications and secure your networks Who This Book Is For This book is for Network Engineers and Network Administrators who are taking their first steps when deploying software-defined networks. Network Architects will also find this book useful when designing and building modern networks. What You Will Learn Understand Traditional Network Challenges to match modern applications requirements Find out all about Next Generation Networks (NGN) Explore the different APIs used to control NGN devices Understand the different software controllers available to manage NGN hardware Design a next generation network In Detail As IT infrastructures become more software-defined, networking operations tend to be more automated with falling levels of manual configuration at the hardware level. Building Modern Networks will brush up your knowledge on the modern networking concepts and help you apply them to your software-defined infrastructure. In this book you'll gain the knowledge necessary to evaluate, choose, and deploy a next generation network design. We will cover open and closed network operating systems (NOS) along with the protocols used to control them such as OpenFlow, Thrift, Opflex, and REST. You will also learn about traffic engineering and security concepts for NGNs. You will also find out how to fine-tune your network using QoS and QoE. By the end of the book, you'll be well versed in simplifying the way you design, build, operate, and troubleshoot your network. Style and Approach This practical tutorial shows you real-world solutions to design and build network services through cutting edge research.

The Linux Programming Interface

FreeBSD Architecture Handbook

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.

LPIC-2: Linux Professional Institute Certification Study Guide

Since the introduction of Linux version 1.2 in March 1995, a worldwide community has evolved from programmers who were attracted by the reliability and flexibility of this completely free operating system. Now at version 2.0, Linux is no longer simply the operating system of choice for hackers, but is being successfully employed in commercial software development, by Internet providers and in research and teaching. This book is written for anybody who wants to learn more about Linux. It explains the inner mechanisms of Linux from process scheduling to memory management and file systems, and will tell you all you need to know about the structure of the kernel, the heart of the Linux operating system. This New Edition: has been thoroughly updated throughout to cover Linux 2.0 shows you how the Linux operating system actually works so that you can start to program the Linux kernel for yourself introduces the kernel sources and describes basic algorithms and data structures, such as scheduling and task structure helps you to understand file systems, networking, and how systems boot The accompanying CD-ROM contains Slackware distribution 3.1 together with its complete source code, the Linux kernel sources up to version 2.0.27, the PC speaker driver, and a wealth of documentation. 0201331438B04062001

Linux Device Drivers

C++ is a powerful, highly flexible, and adaptable programming language that allows software engineers to organize and process information quickly and effectively. But this high-level language is relatively difficult to master, even if you already know the C programming language. The new second edition of "Practical C++ Programming is a complete introduction to the C++ language for programmers who are learning C++. Reflecting the latest changes to the C++ standard, this new edition takes a useful down-to-earth approach, placing a strong emphasis on how to design clean, elegant code. In short, to-the-point chapters, all aspects of programming are covered including style, software engineering, programming design, object-oriented design, and debugging. It also covers common mistakes and how to find (and avoid) them. End of chapter exercises help you ensure you've mastered the material. Steve Oualline's clear, easy-going writing style and hands-on approach to learning make "Practical C++ Programming a nearly painless way to master this complex but powerful programming language.

The Design and Implementation of the 4.3BSD UNIX Operating

System

This practical guidebook explains not only how to get a computer up and running with the FreeBSD operating system, but how to turn it into a highly functional and secure server that can host large numbers of users and disks, support remote access and provide key parts of the Inter

Professional Linux Kernel Architecture

“Probably the most wide ranging and complete Linux device driver book I’ve read.” --Alan Cox, Linux Guru and Key Kernel Developer “Very comprehensive and detailed, covering almost every single Linux device driver type.” --Theodore Ts’o, First Linux Kernel Developer in North America and Chief Platform Strategist of the Linux Foundation

The Most Practical Guide to Writing Linux Device Drivers Linux now offers an exceptionally robust environment for driver development: with today’s kernels, what once required years of development time can be accomplished in days. In this practical, example-driven book, one of the world’s most experienced Linux driver developers systematically demonstrates how to develop reliable Linux drivers for virtually any device. Essential Linux Device Drivers is for any programmer with a working knowledge of operating systems and C, including programmers who have never written drivers before. Sreekrishnan Venkateswaran focuses on the essentials, bringing together all the concepts and techniques you need, while avoiding topics that only matter in highly specialized situations. Venkateswaran begins by reviewing the Linux 2.6 kernel capabilities that are most relevant to driver developers. He introduces simple device classes; then turns to serial buses such as I2C and SPI; external buses such as PCMCIA, PCI, and USB; video, audio, block, network, and wireless device drivers; user-space drivers; and drivers for embedded Linux—one of today’s fastest growing areas of Linux development. For each, Venkateswaran explains the technology, inspects relevant kernel source files, and walks through developing a complete example.

- Addresses drivers discussed in no other book, including drivers for I2C, video, sound, PCMCIA, and different types of flash memory
- Demystifies essential kernel services and facilities, including kernel threads and helper interfaces
- Teaches polling, asynchronous notification, and I/O control
- Introduces the Inter-Integrated Circuit Protocol for embedded Linux drivers
- Covers multimedia device drivers using the Linux-Video subsystem and Linux-Audio framework
- Shows how Linux implements support for wireless technologies such as Bluetooth, Infrared, WiFi, and cellular networking
- Describes the entire driver development lifecycle, through debugging and maintenance
- Includes reference appendixes covering Linux assembly, BIOS calls, and Seq files

UNIX Internals

Linux Kernel Networking takes you on a guided in-depth tour of the current Linux networking implementation and the theory behind it. Linux kernel networking is a complex topic, so the book won't burden you with topics not directly related to networking. This book will also not overload you with cumbersome line-by-line code walkthroughs not directly related to what you're searching for; you'll find just what you need, with in-depth explanations in each chapter and a quick reference

at the end of each chapter. Linux Kernel Networking is the only up-to-date reference guide to understanding how networking is implemented, and it will be indispensable in years to come since so many devices now use Linux or operating systems based on Linux, like Android, and since Linux is so prevalent in the data center arena, including Linux-based virtualization technologies like Xen and KVM.

Linux Kernel Networking

Presents an overview of kernel configuration and building for version 2.6 of the Linux kernel.

The Linux Kernel Module Programming Guide

The first book to cover the LPIC-2 certification Linux allows developers to update source code freely, making it an excellent, low-cost, secure alternative to alternate, more expensive operating systems. It is for this reason that the demand for IT professionals to have an LPI certification is so strong. This study guide provides unparalleled coverage of the LPIC-2 objectives for exams 201 and 202. Clear and concise coverage examines all Linux administration topics while practical, real-world examples enhance your learning process. On the CD, you'll find the Sybex Test Engine, electronic flashcards, and a glossary containing the most important terms you need to understand.. Prepares you for exams 201 and 202 of the Linux Professional Institute Certification Offers clear, concise coverage on exam topics such as the Linux kernel, system startup, networking configuration, system maintenance, domain name server, file sharing, and more Addresses additional key topics for the exams including network client management, e-mail services, system security, and troubleshooting This must-have study guide serves as an invaluable roadmap to attaining LPI certification.

Linux Device Drivers

Benvenuti describes the relationship between the Internet's TCP/IP implementation and the Linux Kernel so that programmers and advanced administrators can modify and fine-tune their network environment.

Understanding the Linux Kernel

Summary: The Linux Kernel Book allows you to delve into the heart of this operating system by means of an in-depth treatment of the internal functioning of the kernel. Each chapter deals in detail with the system components, including: process management, memory management, IPC Systems V, signals, pipes, POSIX tty, file systems, loadable modules, and administration.

Building Embedded Linux Systems

Over 30 recipes to develop custom drivers for your embedded Linux applications. Key Features Use Kernel facilities to develop powerful drivers Via a practical approach, learn core concepts of developing device drivers Program a custom character device to get access to kernel internals Book Description Linux is a

unified kernel that is widely used to develop embedded systems. As Linux has turned out to be one of the most popular operating systems used, the interest in developing proprietary device drivers has also increased. Device drivers play a critical role in how the system performs and ensures that the device works in the manner intended. By offering several examples on the development of character devices and how to use other kernel internals, such as interrupts, kernel timers, and wait queue, as well as how to manage a device tree, you will be able to add proper management for custom peripherals to your embedded system. You will begin by installing the Linux kernel and then configuring it. Once you have installed the system, you will learn to use the different kernel features and the character drivers. You will also cover interrupts in-depth and how you can manage them. Later, you will get into the kernel internals required for developing applications. Next, you will implement advanced character drivers and also become an expert in writing important Linux device drivers. By the end of the book, you will be able to easily write a custom character driver and kernel code as per your requirements. What you will learn Become familiar with the latest kernel releases (4.19+/5.x) running on the ESPRESSObin devkit, an ARM 64-bit machine Download, configure, modify, and build kernel sources Add and remove a device driver or a module from the kernel Master kernel programming Understand how to implement character drivers to manage different kinds of computer peripherals Become well versed with kernel helper functions and objects that can be used to build kernel applications Acquire a knowledge of in-depth concepts to manage custom hardware with Linux from both the kernel and user space Who this book is for This book will help anyone who wants to develop their own Linux device drivers for embedded systems. Having basic hand-on with Linux operating system and embedded concepts is necessary.

Advanced Bash Scripting Guide

This book offers an up-to-date, in-depth, and broad-based exploration of the latest advances in UNIX-based operating systems. Focusing on the design and implementation of the operating system itself, this text compares and analyzes the alternatives offered by several important UNIX variants, and covers several advanced subjects, such as multi-processors and threads.

Bash Guide for Beginners (Second Edition)

Introduction to Linux (Second Edition)

ALL YOU NEED TO KNOW TO SECURE LINUX SYSTEMS, NETWORKS, APPLICATIONS, AND DATA-IN ONE BOOK From the basics to advanced techniques: no Linux security experience necessary Realistic examples & step-by-step activities: practice hands-on without costly equipment The perfect introduction to Linux-based security for all students and IT professionals Linux distributions are widely used to support mission-critical applications and manage crucial data. But safeguarding modern Linux systems is complex, and many Linux books have inadequate or outdated security coverage. Linux Essentials for Cybersecurity is your complete solution. Leading Linux certification and security experts William

“Bo” Rothwell and Dr. Denise Kinsey introduce Linux with the primary goal of enforcing and troubleshooting security. Their practical approach will help you protect systems, even if one or more layers are penetrated. First, you’ll learn how to install Linux to achieve optimal security upfront, even if you have no Linux experience. Next, you’ll master best practices for securely administering accounts, devices, services, processes, data, and networks. Then, you’ll master powerful tools and automated scripting techniques for footprinting, penetration testing, threat detection, logging, auditing, software management, and more. To help you earn certification and demonstrate skills, this guide covers many key topics on CompTIA Linux+ and LPIC-1 exams. Everything is organized clearly and logically for easy understanding, effective classroom use, and rapid on-the-job training.

LEARN HOW TO: Review Linux operating system components from the standpoint of security Master key commands, tools, and skills for securing Linux systems Troubleshoot common Linux security problems, one step at a time Protect user and group accounts with Pluggable Authentication Modules (PAM), SELinux, passwords, and policies Safeguard files and directories with permissions and attributes Create, manage, and protect storage devices: both local and networked Automate system security 24/7 by writing and scheduling scripts Maintain network services, encrypt network connections, and secure network-accessible processes Examine which processes are running—and which may represent a threat Use system logs to pinpoint potential vulnerabilities Keep Linux up-to-date with Red Hat or Debian software management tools Modify boot processes to harden security Master advanced techniques for gathering system information

Practical C++ Programming

The Bash Guide for Beginners (Second Edition) discusses concepts useful in the daily life of the serious Bash user. While a basic knowledge of shell usage is required, it starts with a discussion of shell building blocks and common practices. Then it presents the grep, awk and sed tools that will later be used to create more interesting examples. The second half of the course is about shell constructs such as loops, conditional tests, functions and traps, and a number of ways to make interactive scripts. All chapters come with examples and exercises that will help you become familiar with the theory.

FreeBSD Handbook

Get up and running with system programming concepts in Linux Key Features Acquire insight on Linux system architecture and its programming interfaces Get to grips with core concepts such as process management, signalling and pthreads Packed with industry best practices and dozens of code examples Book Description The Linux OS and its embedded and server applications are critical components of today’s software infrastructure in a decentralized, networked universe. The industry’s demand for proficient Linux developers is only rising with time. Hands-On System Programming with Linux gives you a solid theoretical base and practical industry-relevant descriptions, and covers the Linux system programming domain. It delves into the art and science of Linux application programming— system architecture, process memory and management, signaling, timers, pthreads, and file IO. This book goes beyond the use API X to do Y approach; it explains the concepts and theories required to understand programming interfaces and design

decisions, the tradeoffs made by experienced developers when using them, and the rationale behind them. Troubleshooting tips and techniques are included in the concluding chapter. By the end of this book, you will have gained essential conceptual design knowledge and hands-on experience working with Linux system programming interfaces. What you will learn Explore the theoretical underpinnings of Linux system architecture Understand why modern OSes use virtual memory and dynamic memory APIs Get to grips with dynamic memory issues and effectively debug them Learn key concepts and powerful system APIs related to process management Effectively perform file IO and use signaling and timers Deeply understand multithreading concepts, pthreads APIs, synchronization and scheduling Who this book is for Hands-On System Programming with Linux is for Linux system engineers, programmers, or anyone who wants to go beyond using an API set to understanding the theoretical underpinnings and concepts behind powerful Linux system programming APIs. To get the most out of this book, you should be familiar with Linux at the user-level logging in, using shell via the command line interface, the ability to use tools such as find, grep, and sort. Working knowledge of the C programming language is required. No prior experience with Linux systems programming is assumed.

Linux Kernel Internals

Presents an overview of kernel configuration and building for version 2.6 of the Linux kernel.

Linux Device Driver Development Cookbook

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

Slackware Linux Essentials

Any UNIX programmer using the latest workstations or super minicomputers from vendors such as Sun, Silicon Graphics (SGI), ATandT, Amdahl, IBM, Apple, Compaq, Mentor Graphics, and Thinking Machines needs this book to optimize his/her job performance. This book teaches how these architectures operate using clear, comprehensible examples to explain the concepts, and provides a good reference for people already familiar with the basic concepts.

Embedded Linux Primer

The FreeBSD Handbook is a comprehensive FreeBSD tutorial and reference. It covers installation, day-to-day use of FreeBSD, and mach more, such as the Ports collection, creating a custom kernel, security topics, the X Window System, how to use FreeBSD's Linux binary compatibility, and how to upgrade your system from source using the 'make world' command, to name a few.

Building Modern Networks

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.

The Linux Networking Architecture

Newly updated to include new calls and techniques introduced in Versions 2.2 and 2.4 of the Linux kernel, a definitive resource for those who want to support computer peripherals under the Linux operating system explains how to write a driver for a broad spectrum of devices, including character devices, network interfaces, and block devices. Original. (Intermediate)

Linux Kernel in a Nutshell

UNIX Systems for Modern Architectures

Linux Kernel Module Programming Guide is for people who want to write kernel modules. It takes a hands-on approach starting with writing a small "hello, world" program, and quickly moves from there. Far from a boring text on programming, Linux Kernel Module Programming Guide has a lively style that entertains while it educates. An excellent guide for anyone wishing to get started on kernel module programming. *** Money raised from the sale of this book supports the development of free software and documentation.

Lions' Commentary on UNIX 6th Edition with Source Code

Up-to-the-Minute, Complete Guidance for Developing Embedded Solutions with Linux Linux has emerged as today's #1 operating system for embedded products. Christopher Hallinan's Embedded Linux Primer has proven itself as the definitive real-world guide to building efficient, high-value, embedded systems with Linux. Now, Hallinan has thoroughly updated this highly praised book for the newest Linux kernels, capabilities, tools, and hardware support, including advanced multicore processors. Drawing on more than a decade of embedded Linux

experience, Hallinan helps you rapidly climb the learning curve, whether you're moving from legacy environments or you're new to embedded programming. Hallinan addresses today's most important development challenges and demonstrates how to solve the problems you're most likely to encounter. You'll learn how to build a modern, efficient embedded Linux development environment, and then utilize it as productively as possible. Hallinan offers up-to-date guidance on everything from kernel configuration and initialization to bootloaders, device drivers to file systems, and BusyBox utilities to real-time configuration and system analysis. This edition adds entirely new chapters on UDEV, USB, and open source build systems. Tour the typical embedded system and development environment and understand its concepts and components. Understand the Linux kernel and userspace initialization processes. Preview bootloaders, with specific emphasis on U-Boot. Configure the Memory Technology Devices (MTD) subsystem to interface with flash (and other) memory devices. Make the most of BusyBox and latest open source development tools. Learn from expanded and updated coverage of kernel debugging. Build and analyze real-time systems with Linux. Learn to configure device files and driver loading with UDEV. Walk through detailed coverage of the USB subsystem. Introduces the latest open source embedded Linux build systems. Reference appendices include U-Boot and BusyBox commands.

The Linux Kernel Book

Offers a comprehensive view of the underpinnings of the Linux kernel on the Intel x86 and the Power PC.

Linux Essentials for Cybersecurity

This introduction to networking on Linux now covers firewalls, including the use of ipchains and Netfilter, masquerading, and accounting. Other new topics in this second edition include Novell (NCP/IPX) support and INN (news administration).

Linux Kernel in a Nutshell

This book contains the practical labs corresponding to the "Linux Kernel and Driver Development: Training Handouts" book from Bootlin. Get your hands on an embedded board based on an ARM processor (the Beagle Bone Black board), and apply what you learned: write a Device Tree to declare devices connected to your board, configure pin multiplexing, and implement drivers for I2C and serial devices. You will learn how to manage multiple devices with the same driver, to access and write hardware registers, to allocate memory, to register and manage interrupts, as well as how to debug your code and interpret the kernel error messages. You will also keep an eye on the board and CPU datasheets so that you will always understand the values that you feed to the kernel.

Understanding Linux Network Internals

An in-depth guide of the FreeBSD Operating System Architecture. This manual is available online for free at freebsd.org. This manual is printed in grayscale.

The Complete FreeBSD

This is an expert guide to the 2.6 Linux Kernel's most important component: the Virtual Memory Manager.

The Linux Kernel Primer

Whether you're just starting out with Linux or looking to hone your existing skills, this book will provide you with the knowledge you need.

[ROMANCE](#) [ACTION & ADVENTURE](#) [MYSTERY & THRILLER](#) [BIOGRAPHIES & HISTORY](#) [CHILDREN'S](#) [YOUNG ADULT](#) [FANTASY](#) [HISTORICAL FICTION](#) [HORROR](#) [LITERARY FICTION](#) [NON-FICTION](#) [SCIENCE FICTION](#)