
Operating System Topic File System Architecture

Embedded and Real-Time Operating Systems

Operating System Security

AN INTRODUCTION TO OPERATING SYSTEMS :
CONCEPTS AND PRACTICE (GNU/LINUX AND
WINDOWS), FIFTH EDITION

OPERATING SYSTEM

Catalogue of Distributed File/Operating Systems

Operating Systems (Self Edition 1.1.Abridged)

Linux with Operating System Concepts

Operating System Question Bank with Answers: A
Comprehensive Handbook

Building an Operating System with Rust

DISTRIBUTED OPERATING SYSTEMS

Operating Systems and Middleware

Operating Systems: Principles And Design

Multimedia Systems

Operating System, 2nd Edition

Demystifying Embedded Systems Middleware

Digital Forensics with Open Source Tools

Operating System

Computer Forensics JumpStart

Operating System (For Anna)

Operating Systems

Operating System Security

Classic Operating Systems
Practical File System Design with the BE File System
Formal Models of Operating System Kernels
Operating System Forensics
Mastering Modern Linux
Understanding Operating Systems
Convergence of Mobile and Stationary Next-Generation Networks
UNIX Filesystems
Applied Operating System Concepts
NMCS Information Processing System 360
Formatted File System (NIPS 360 FFS)
File System Forensic Analysis
Linux with Operating System Concepts
Operating Systems
Introduction to Operating System Design and Implementation
Tru64 UNIX Troubleshooting
Operating Systems
Securing Information and Communications Systems
Fundamental of Operating System Technology

Operating System
Topic File
System Architecture Downloaded from
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**GIANCARLO
MCMAHON**

Embedded
and Real-Time
Operating

Systems
Arihant
Publications
India limited
A True
Textbook for
an
Introductory

Course,
System
Administration
Course, or a
Combination
Course Linux
with Operating
System

Concepts, Second Edition merges conceptual operating system (OS) and Unix/Linux topics into one cohesive textbook for undergraduate students. The book can be used for a one- or two-semester course on Linux or Unix. It is complete with review sections, problems, definitions, concepts and relevant introductory material, such as binary and Boolean logic, OS kernels and the role of the CPU and memory hierarchy. Details for Introductory and Advanced Users The book covers Linux from both the user and system administrator positions. From a user perspective, it emphasizes command-line interaction. From a system administrator perspective, the text reinforces shell scripting with examples of administration scripts that support the automation of administrator tasks. Thorough Coverage of Concepts and Linux Commands The author incorporates OS concepts not found in most Linux/Unix textbooks, including kernels, file systems, storage devices, virtual memory and process management. He also introduces computer science topics, such as computer networks and TCP/IP, interpreters versus

compilers, file compression, file system integrity through backups, RAID and encryption technologies, booting and the GNUs C compiler. New in this Edition The book has been updated to systemd Linux and the newer services like Cockpit, NetworkManager, firewalld and journald. This edition explores Linux beyond CentOS/Red Hat by adding detail on Debian distributions. Content

across most topics has been updated and improved. *Operating System Security* Elsevier The highly praised book in communications networking from IEEE Press, now available in the Eastern Economy Edition. This is a non-mathematical introduction to Distributed Operating Systems explaining the fundamental concepts and design principles of this emerging technology. As

a textbook for students and as a self-study text for systems managers and software engineers, this book provides a concise and an informal introduction to the subject.

**AN
INTRODUCTION TO
OPERATING
SYSTEMS :
CONCEPTS
AND
PRACTICE
(GNU/LINUX
AND
WINDOWS),
FIFTH
EDITION**

Artech House
This book is an introduction to the design and

implementation of operating systems using OSP 2, the next generation of the highly popular OSP courseware for undergraduate operating system courses. Coverage details process and thread management; memory, resource and I/O device management; and interprocess communication. The book allows students to practice these skills in a realistic

operating systems programming environment. An Instructors Manual details how to use the OSP Project Generator and sample assignments. Even in one semester, students can learn a host of issues in operating system design.

OPERATING SYSTEM
Morgan & Claypool Publishers
This book covers the basic concepts and principles of operating systems, showing how to apply them

to the design and implementation of complete operating systems for embedded and real-time systems. It includes all the foundational and background information on ARM architecture, ARM instructions and programming, toolchain for developing programs, virtual machines for software implementation and testing, program execution image,

function call conventions, run-time stack usage and link C programs with assembly code. Embedded and Real-Time Operating Systems describes the design and implementation of a complete OS for embedded systems in incremental steps, explaining the design principles and implementation techniques. For Symmetric Multiprocessing (SMP) embedded systems, the author examines the

ARM MPcore processors, which include the SCU and GIC for interrupts routing and interprocessor communication and synchronization by Software Generated Interrupts (SGIs). This Second Edition covers ARM64 architecture and programming. These include exception levels, vector tables and exceptions handling, GICv3 programming and interrupt processing. It covers virtual

to physical address mappings in ARMv8, and shows a 64-bit OS with kernel space in EL1 and separate user spaces in EL0. It also covers ARM TrustZone technology and secure systems. These include hardware and software architectures for secure and normal worlds, interactions and switching between the two worlds. It shows a secure world comprising a secure monitor in EL3 to provide service

functions, and a normal world comprising processes in non-secure EL1, which use SMC to access service functions in the secure world. Throughout the book, complete working sample systems demonstrate the design principles and implementation techniques. The content is suitable for advanced-level and graduate students working in software engineering, programming, and systems theory. *Catalogue of Distributed File/Operating Systems* Springer Nature Operating System Forensics is the first book to cover all three critical operating systems for digital forensic investigations in one comprehensive reference. Users will learn how to conduct successful digital forensic examinations in Windows, Linux, and Mac OS, the methodologies used, key technical concepts, and the tools needed to perform examinations. Mobile operating systems such as Android, iOS, Windows, and Blackberry are also covered, providing everything practitioners need to conduct a forensic investigation of the most commonly used operating systems, including technical details of how each operating

system works and how to find artifacts. This book walks you through the critical components of investigation and operating system functionality, including file systems, data recovery, memory forensics, system configuration, Internet access, cloud computing, tracking artifacts, executable layouts, malware, and log files. You'll find coverage of key technical

topics like Windows Registry, /etc directory, Web browsers caches, Mbox, PST files, GPS data, ELF, and more. Hands-on exercises in each chapter drive home the concepts covered in the book. You'll get everything you need for a successful forensics examination, including incident response tactics and legal requirements. Operating System Forensics is the only place you'll find all

this covered in one book. - Covers digital forensic investigations of the three major operating systems, including Windows, Linux, and Mac OS - Presents the technical details of each operating system, allowing users to find artifacts that might be missed using automated tools - Hands-on exercises drive home key concepts covered in the book. - Includes discussions of

cloud, Internet, and major mobile operating systems such as Android and iOS

Operating Systems (Self Edition)
1.1.Abridged)
HiTeX Press

UNDERSTANDING OPERATING SYSTEMS provides a basic understanding of operating systems theory, a comparison of the major operating systems in use, and a description of the technical and operational tradeoffs

inherent in each. The effective two-part organization covers the theory of operating systems, their historical roots, and their conceptual basis (which does not change substantially), culminating with how these theories are applied in the specifics of five operating systems (which evolve constantly). The authors explain this technical subject in a not-so-

technical manner, providing enough detail to illustrate the complexities of stand-alone and networked operating systems.

UNDERSTANDING OPERATING SYSTEMS is written in a clear, conversational style with concrete examples and illustrations that readers easily grasp.

Linux with Operating System Concepts
Springer Science & Business

Media system provides the
 Operating generations to programme
 systems have computer design
 been evolving generations is illustration
 through the crude, but it and guidance
 years. In the does provide along with
 following some new concepts,
 sections we structure nd ptrsents an
 will briefly where there in-depth
 look at this would analysis of the
 development. otherwise be fundamental
 Since none. concepts of an
 operating Operating OS as an
 systems System interrupt
 history call Question Bank driven
 have been with Answers: programme
 closely tied to A whose basic
 the Comprehensiv constituents
 architecture of e Handbook are the
 the computers Max Hailperin processes
 on which they Examines the giving rise to a
 run, we will workings of an concurrent
 look at operating programme.
 successive system, which Building an
 generations of is essentially a Operating
 computers to concurrent System with
 see what their programme, Rust Syngress
 operating and strikes a This text
 systems were fine balance demystifies
 like. This between the subject of
 mapping of theory and operating
 operating practice. It systems by

using a simple step-by-step approach, from fundamentals to modern concepts of traditional uniprocessor operating systems, in addition to advanced operating systems on various multiple-processor platforms and also real-time operating systems (RTOSs). While giving insight into the generic operating systems of today, its primary objective is to integrate concepts, techniques, and case studies into cohesive chapters that provide a reasonable balance between theoretical design issues and practical implementation details. It addresses most of the issues that need to be resolved in the design and development of continuously evolving, rich, diversified modern operating systems and describes successful implementation approaches in the form of abstract models and algorithms. This book is primarily intended for use in undergraduate courses in any discipline and also for a substantial portion of postgraduate courses that include the subject of operating systems. It can also be used for self-study. Key Features • Exhaustive discussions on traditional uniprocessor-based generic operating

systems with figures, tables, and also real-life implementations of Windows, UNIX, Linux, and to some extent Sun Solaris. • Separate chapter on security and protection: a grand challenge in the domain of today's operating systems, describing many different issues, including implementation in modern operating systems like UNIX, Linux, and Windows. • Separate

chapter on advanced operating systems detailing major design issues and salient features of multiple-processor-based operating systems, including distributed operating systems. Cluster architecture; a low-cost base substitute for true distributed systems is explained including its classification, merits, and drawbacks. • Separate chapter on

real-time operating systems containing fundamental topics, useful concepts, and major issues, as well as a few different types of real-life implementations. • Online Support Material is provided to negotiate acute page constraint which is exclusively a part and parcel of the text delivered in this book containing the chapter-wise/topic-wise detail explanation with

representative figures of many important areas for the completeness of the narratives. *DISTRIBUTED OPERATING SYSTEMS* Elsevier "Operating systems provide the fundamental mechanisms for securing computer processing. Since the 1960s, operating systems designers have explored how to build "secure" operating systems - operating systems

whose mechanisms protect the system against a motivated adversary. Recently, the importance of ensuring such security has become a mainstream issue for all operating systems. In this book, we examine past research that outlines the requirements for a secure operating system and research that implements example systems that aim for such requirements. For system designs that

aimed to satisfy these requirements, we see that the complexity of software systems often results in implementation challenges that we are still exploring to this day. However, if a system design does not aim for achieving the secure operating system requirements, then its security features fail to protect the system in a myriad of ways. We also study systems that have been retro-fit

with secure operating system features after an initial deployment. In all cases, the conflict between function on one hand and security on the other leads to difficult choices and the potential for unwise compromises. From this book, we hope that systems designers and implementers will learn the requirements for operating systems that effectively enforce security and will better

understand how to manage the balance between function and security."--
BOOK JACKET.
Operating Systems and Middleware
 CRC Press
 New edition of the bestseller provides readers with a clear description of the concepts that underlie operating systems Uses Java to illustrate many ideas and includes numerous examples that pertain specifically to popular operating

systems such as UNIX, Solaris 2, Windows NT and XP, Mach, the Apple Macintosh OS, IBM's OS/2 and Linux Style is even more hands-on than the previous edition, with extensive programming examples written in Java and C New coverage includes recent advances in Windows 2000/XP, Linux, Solaris 9, and Mac OS X Detailed case studies of Windows XP and Linux give readers full

coverage of two very popular operating systems Also available from the same authors, the highly successful Operating System Concepts, Sixth Edition (0-471-25060-0)

Operating Systems: Principles And Design

Elsevier Dealing with system problems—from user login failures to server crashes—is a critical part of a system administrator's job. A down

system can cost a business thousands of dollars per minute. But there is little or no information available on how to troubleshoot and correct system problems; in most cases, these skills are learned in an ad-hoc manner, usually in the pressure-cooker environment of a crisis. This is the first book to address this lack of information. The authors (both

experienced Tru64 UNIX support engineer for Compaq) systematically present the techniques and tools needed to find and fix system problems. The first part of the book presents the general principles and techniques needed in system troubleshooting. These principles and techniques are useful not only for UNIX system administrators, but for anyone who needs to find and fix system

problems. After this foundation, the authors describe troubleshooting tools used in the UNIX environment. The remainder of the book covers specific areas of the Tru64 UNIX operating system in detail: listing common problems, their causes, how to detect them, and how to correct them. Each chapter includes a "Before You Call Support" section that details the most important

things to check and correct before it's necessary to call Compaq technical support. The authors also include decision trees to help the reader systematically isolate particular problem types. "Before You Call Tech Support" sections include tables and diagrams for quick access to precise data. Decision trees to help choose the best way to troubleshoot a particular

problem
Multimedia Systems
 Springer
 Nature
 In general, distributed systems can be classified into Distributed File Systems (DFS) and Distributed Operating Systems (DOS). The survey which follows distinguishes between DFS approaches in Chapters 2-3, and DOS approaches in Chapters 4-5. Within DFS and DOS, I further distinguish "traditional" and object-

oriented approaches. A traditional approach is one where processes are the active components in the systems and where the name space is hierarchically organized. In a centralized environment, UNIX would be a good example of a traditional approach. On the other hand, an object-oriented approach deals with objects in which all information is encapsulated. Some systems of importance

do not fit into the DFS/DOS classification. I call these systems "closely related" and put them into Chapter 6. Chapter 7 contains a table of comparison. This table gives a lucid overview summarizing the information provided and allowing for quick access. The last chapter is added for the sake of completeness. It contains very brief descriptions of other related systems.

These systems are of minor interest or do not provide transparency at all. Sometimes I had to assign a system to this chapter simply for lack of adequate information about it.

Operating System, 2nd Edition Vikas Publishing House
Operating System is an insightful work that elaborates on fundamentals as well as advanced topics of the discipline. It offers an in-depth

coverage of concepts, design and functions of an operating system irrespective of the hardware used. With neat illustrations and examples and presentation of difficult concepts in the simplest form, the aim is to make the subject crystal clear to the students, and the book extremely student-friendly.

Demystifying Embedded Systems Middleware
iUniverse
Over the past

two decades, there has been a huge amount of innovation in both the principles and practice of operating systems. Over the same period, the core ideas in a modern operating system - protection, concurrency, virtualization, resource allocation, and reliable storage - have become widely applied throughout computer science.

Whether you get a job at Facebook, Google,

Microsoft, or any other leading-edge technology company, it is impossible to build resilient, secure, and flexible computer systems without the ability to apply operating systems concepts in a variety of settings. This book examines the both the principles and practice of modern operating systems, taking important, high-level concepts all the way down

to the level of working code. Because operating systems concepts are among the most difficult in computer science, this top to bottom approach is the only way to really understand and master this important material.

Digital Forensics with Open Source Tools

PHI Learning Pvt. Ltd. Operating systems provide the fundamental mechanisms for securing computer processing.

Since the 1960s, operating systems designers have explored how to build "secure" operating systems - operating systems whose mechanisms protect the system against a motivated adversary. Recently, the importance of ensuring such security has become a mainstream issue for all operating systems. In this book, we examine past research that outlines the

requirements for a secure operating system and research that implements example systems that aim for such requirements. For system designs that aimed to satisfy these requirements, we see that the complexity of software systems often results in implementation challenges that we are still exploring to this day. However, if a system design does not aim for achieving the secure operating

system requirements, then its security features fail to protect the system in a myriad of ways. We also study systems that have been retrofit with secure operating system features after an initial deployment. In all cases, the conflict between function on one hand and security on the other leads to difficult choices and the potential for unwise compromises. From this

book, we hope that systems designers and implementors will learn the requirements for operating systems that effectively enforce security and will better understand how to manage the balance between function and security. Table of Contents: Introduction / Access Control Fundamentals / Multics / Security in Ordinary Operating Systems / Verifiable Security Goals / Security Kernels /

Securing Commercial Operating Systems / Case Study: Solaris Trusted Extensions / Case Study: Building a Secure Operating System for Linux / Secure Capability Systems / Secure Virtual Machine Systems / System Assurance Operating System CRC Press The Definitive Guide to File System Analysis: Key Concepts and Hands-on Techniques Most digital

evidence is stored within the computer's file system, but understanding how file systems work is one of the most technically challenging concepts for a digital investigator because there exists little documentation. Now, security expert Brian Carrier has written the definitive reference for everyone who wants to understand and be able to testify about how file

system analysis is performed. Carrier begins with an overview of investigation and computer foundations and then gives an authoritative, comprehensive, and illustrated overview of contemporary volume and file systems: Crucial information for discovering hidden evidence, recovering deleted data, and validating your tools. Along the way, he describes data

structures, analyzes example disk images, provides advanced investigation scenarios, and uses today's most valuable open source file system analysis tools—including tools he personally developed. Coverage includes Preserving the digital crime scene and duplicating hard disks for "dead analysis" Identifying hidden data on a disk's Host Protected Area (HPA) Reading

source data: Direct versus BIOS access, dead versus live acquisition, error handling, and more Analyzing DOS, Apple, and GPT partitions; BSD disk labels; and Sun Volume Table of Contents using key concepts, data structures, and specific techniques Analyzing the contents of multiple disk volumes, such as RAID and disk spanning Analyzing FAT, NTFS, Ext2, Ext3, UFS1, and UFS2 file systems using key concepts, data structures, and specific techniques Finding evidence: File metadata, recovery of deleted files, data hiding locations, and more Using The Sleuth Kit (TSK), Autopsy Forensic Browser, and related open source tools When it comes to file system analysis, no other book offers this much detail or expertise. Whether you're a digital forensics specialist, incident response team member, law enforcement officer, corporate security specialist, or auditor, this book will become an indispensable resource for forensic investigations, no matter what analysis tools you use.

Computer Forensics JumpStart
John Wiley & Sons
By using this innovative text, students will obtain an understanding of how contemporary

operating systems and middleware work, and why they work that way.

Operating System (For Anna) Addison-Wesley Professional Digital Forensics with Open Source Tools is the definitive book on investigating and analyzing computer systems and media using open source tools. The book is a technical procedural guide, and explains the use of open source tools

on Mac, Linux and Windows systems as a platform for performing computer forensics. Both well-known and novel forensic methods are demonstrated using command-line and graphical open source computer forensic tools for examining a wide range of target systems and artifacts. Written by world-renowned forensic practitioners, this book uses the most current examination

and analysis techniques in the field. It consists of 9 chapters that cover a range of topics such as the open source examination platform; disk and file system analysis; Windows systems and artifacts; Linux systems and artifacts; Mac OS X systems and artifacts; Internet artifacts; and automating analysis and extending capabilities. The book lends itself to use by students and

those entering the field who do not have means to purchase new tools for different investigations. This book will appeal to forensic practitioners from areas including incident response teams and computer forensic investigators; forensic technicians from legal, audit, and consulting firms; and law enforcement agencies. - Written by world-renowned forensic practitioners - Details core concepts and techniques of forensic file system analysis - Covers analysis of artifacts from the Windows, Mac, and Linux operating systems *Operating Systems* John Wiley & Sons The book *Operating System* by Rohit Khurana is an insightful work that elaborates on fundamentals as well as advanced topics of the discipline. It offers an in-depth coverage of concepts, design and functions of an operating system irrespective of the hardware used. With illustrations and examples the aim is to make the subject crystal clear and the book extremely student-friendly. The book caters to undergraduat e students of most Indian universities, who would find subject matter highly informative and enriching. Tailored as a guide for self-paced

learning, it equips budding system programmers with the right knowledge and expertise. The book has been revised to keep pace with the latest technology and constantly revising syllabuses. Thus, this edition has become more comprehensive with the inclusion of several new topics. In addition, certain sections of the book have been thoroughly revised. Key Features •

Case studies of Unix, Linux and Windows to put theory concepts into practice • A crisp summary for recapitulation with each chapter • A glossary of technical terms • Insightful questions and model test papers to prepare for the examinations New in this Edition • More types of operating system, like PC and mobile; Methods used for communication in client-

server systems. • New topics like: Thread library; Thread scheduling; Principles of concurrency, Precedence graph, Concurrency conditions and Sleeping barber problem; Structure of page tables, Demand segmentation and Cache memory organization; STREAMS; Disk attachment, Stable and tertiary storage, Record blocking and File sharing; Goals and

principles of
protection,
Access control

matrix,
Revocation of
access rights,
Cryptography,

Trusted
systems, and
Firewalls.