

## Windows Internals, Part 1 (Developer Reference)

For a one-semester undergraduate course in operating systems for computer science, computer engineering, and electrical engineering majors. Winner of the 2009 Textbook Excellence Award from the Text and Academic Authors Association (TAA)! Operating Systems: Internals and Design Principles is a comprehensive and unified introduction to operating systems. By using several innovative tools, Stallings makes it possible to understand critical core concepts that can be fundamentally challenging. The new edition includes the implementation of web based animations to aid visual learners. At key points in the book, students are directed to view an animation and then are provided with assignments to alter the animation input and analyze the results. The concepts are then enhanced and supported by end-of-chapter case studies of UNIX, Linux and Windows Vista. These provide students with a solid understanding of the key mechanisms of modern operating systems and the types of design tradeoffs and decisions involved in OS design. Because they are embedded into the text as end of chapter material, students are able to apply them right at the point of discussion. This approach is equally useful as a basic reference and as an up-to-date survey of the state of the art.

Written by a networking expert, this reference details IPv6 from its features and benefits to its packet structure and protocol processes to put the technology into practice. The definitive guide—fully updated for Windows 10 and Windows Server 2016 Delve inside Windows architecture and internals, and see how core components work behind the scenes. Led by a team of internals experts, this classic guide has been fully updated for Windows 10 and Windows Server 2016. Whether you are a developer or an IT professional, you'll get critical, insider perspectives on how Windows operates. And through hands-on experiments, you'll experience its internal behavior firsthand—knowledge you can apply to improve application design, debugging, system performance, and support. This book will help you: · Understand the Window system architecture and its most important entities, such as processes and threads · Examine how processes manage resources and threads scheduled for execution inside processes · Observe how Windows manages virtual and physical memory · Dig into the Windows I/O system and see how device drivers work and integrate with the rest of the system · Go inside the Windows security model to see how it manages access, auditing, and authorization, and learn about the new mechanisms in Windows 10 and Server 2016

Maximizing the performance of your algorithms and applications is extremely important and can give you a competitive advantage, a lower cost of ownership, and happier users. Pro .NET Performance explains the internals of Windows, the CLR, and the physical hardware that affect the performance of your applications, and gives you the knowledge and tools to measure how your code performs in isolation from external factors. The book is full of C# code samples and tips to help you squeeze every bit of juice from your application—lower memory utilization, consistent CPU usage, and fewer I/O operations across the network and disk. Pro .NET Performance will change the way you think about .NET application development. Guides you through performance measurement with a variety of profilers and other tools Explains how OS and CLR internals affect your application's performance in unexpected ways Provides you with tips and real-life case studies for

Improving application performance

Insights Windows Debugging

Essential COM

Operating Systems

Android Internals - Volume 1

Understanding IPv6

Troubleshooting with the Windows Sysinternals Tools

A guide to the architecture and internal structure of Microsoft Windows 7 and Microsoft Windows server 2008 R2.

Delve into programming the Windows operating system through the Windows API in with C++. Use the power of the Windows API to working with processes, threads, jobs, memory, I/O and more. The book covers current Windows 10 versions, allowing you to get the most of what Windows has to offer to developers in terms of productivity, performance and scalability.

Want to perform programming tasks better, faster, simpler, and make them repeatable? Take a deep dive into Windows PowerShell and discover what this distributed automation platform can do. Whether you're a .NET developer or IT pro, this concise guide will show you how PowerShell's scripting language can help you be more productive on everyday tasks. Quickly learn how to create PowerShell scripts and embed them into your existing applications, write "literate languages" to solve specific problems, and take charge of your code. This book includes example scripts that you can easily pull apart, tweak, and then use in your own PowerShell and .NET solutions. Slice and dice text, XML, CSV, and JSON with ease Embed PowerShell to provide scripting capabilities for your C# apps Create GUI applications five to ten times faster with less code Leverage PowerShell's capabilities to work with the Internet Interact with DLLs and create objects, automatically display properties, and call methods in live interactive sessions Build domain-specific languages (DSLs) and vocabularies to express solutions more clearly Work with Microsoft Office via the Component Object Model (COM) Discover PowerShell v3 features included with Windows 8 and Windows Server 2012

· Look it up in Petzold " remains the decisive last word in answering questions about Windows development. And in PROGRAMMING WINDOWS, FIFTH EDITION, the esteemed Windows Pioneer Award winner revises his classic text with authoritative coverage of the latest versions of the Windows operating system—once again drilling down to the essential API heart of Win32 programming. Topics include: The basics—input, output, dialog boxes An introduction to Unicode Graphics—drawing, text and fonts, bitmaps and metafiles The kernel and the printer Sound and music Dynamic-link libraries Multitasking and multithreading The Multiple-Document Interface Programming for the Internet and Intranets Packed as always with definitive examples, this newest Petzold delivers the ultimate sourcebook and tutorial for Windows programmers at all levels working with Microsoft Windows 95, Windows 98, or Microsoft Windows NT. No aspiring or experienced developer can afford to be without it. An electronic version of this book is available on the companion CD. For customers who purchase an ebook version of this title, instructions for downloading the CD files can be found in the ebook.

Infinite Jest

The Rust Programming Language (Covers Rust 2018)

A Developer's Guide

System architecture, processes, threads, memory management, and more, Seventh Edition

Windows 10 System Programming, Part 1

CPython Internals

Use Windows debuggers throughout the development cycle—and build better software Rethink your use of Windows debugging and tracing tools—and learn how to make them a key part of test-driven software development. Led by a member of the Windows Fundamentals Team at Microsoft, you'll apply expert debugging and tracing techniques—and sharpen your C++ and C# code analysis skills through practical examples and common scenarios. Learn why experienced developers use debuggers in every step of the development process, and not just when bugs appear. Discover how to: · Go behind the scenes to examine how powerful Windows debuggers work · Catch bugs early in the development cycle with static and runtime analysis tools · Gain practical strategies to tackle the most common code defects · Apply expert tricks to handle user-mode and kernel-mode debugging tasks · Implement postmortem techniques such as JIT and dump debugging · Debug the concurrency and security aspects of your software · Use debuggers to analyze interactions between your code and the operating system · Analyze software behavior with Xperf and the Event Tracing for Windows (ETW) framework

See how the core components of the Windows operating system work behind the scenes—guided by a team of internationally renowned internals experts. Fully updated for Windows Server(R) 2008 and Windows Vista(R), this classic guide delivers key architectural insights on system design, debugging, performance, and support—along with hands-on experiments to experience Windows internal behavior firsthand. Delve inside Windows architecture and internals: Understand how the core system and management mechanisms work—from the object manager to services to the registry Explore internal system data structures using tools like the kernel debugger Grasp the scheduler's priority and CPU placement algorithms Go inside the Windows security model to see how it authorizes access to data Understand how Windows manages physical and virtual memory Tour the Windows networking stack from top to bottom—including APIs, protocol drivers, and network adapter drivers Troubleshoot file-system access problems and system boot problems Learn how to analyze crashes

Working with Microsoft's network directory service for the first time can be a headache for system and network administrators. IT professionals, technical project managers, and programmers alike. This authoritative guide is meant to relieve that pain. Instead of going through the graphical user interface screen by screen, O'Reilly's bestselling Active Directory tells you how to design, manage, and maintain a small, medium, or enterprise Active Directory infrastructure. Fully updated to cover Active Directory for Windows Server 2003 SP1 and R2, this third edition is full of important updates and corrections. It's perfect for all Active Directory administrators, whether you manage a single server or a global multinational with thousands of servers. Active Directory, 3rd Edition is divided into three parts. Part I introduces much of how Active Directory works, giving you a thorough grounding in its concepts. Some of the topics include Active Directory replication, the schema, application partitions, group policies, and interaction with DNS. Part II details the issues around properly designing the directory infrastructure. Topics include designing the namespace, creating a site topology, designing group policies for locking down client settings, auditing, permissions, backup and recovery, and a look at Microsoft's future direction with Directory Services. Part III covers how to create and manipulate users, groups, printers, and other objects that you may need in your everyday management of Active Directory. If you want a book that lays bare the design and management of an enterprise or departmental Active Directory, then look no further. Active Directory, 3rd Edition will quickly earn its place among the books you don't want to be without.

Start developing robust drivers with expert guidance from the teams who developed Windows Driver Foundation. This comprehensive book gets you up to speed quickly and goes beyond the fundamentals to help you extend your Windows development skills. You get best practices, technical guidance, and extensive code samples to help you master the intricacies of the next-generation driver model—and simplify driver development. Discover how to: · Use the Windows Driver Foundation to develop kernel-mode or user-mode drivers · Create drivers that support Plug and Play and power management—with minimal code · Implement robust I/O handling code · Effectively manage synchronization and concurrency in driver code · Develop user-mode drivers for protocol-based and serial-bus-based devices · Use USB-specific features of the frameworks to quickly develop drivers for USB devices · Design and implement kernel-mode drivers for DMA devices · Evaluate your drivers with source code analysis and static verification tools · Apply best practices to test, debug, and install drivers · PLUS—Get driver code samples on the Web

Advanced Windows Debugging

The Rootkit Arsenal

Microsoft Windows Server 2003, Windows XP, and Windows 2000

Windows Internals, Part 1

Internals and Design Principles

Enhance Your Productivity and Enable Rapid Application Development

**The official book on the Rust programming language, written by the Rust development team at the Mozilla Foundation, fully updated for Rust 2018. The Rust Programming Language is the official book on Rust: an open source systems programming language that helps you write faster, more reliable software. Rust offers control over low-level details (such as memory usage) in combination with high-level ergonomics, eliminating the hassle traditionally associated with low-level languages. The authors of The Rust Programming Language, members of the Rust Core Team, share their knowledge and experience to show you how to take full advantage of Rust's features—from installation to creating robust and scalable programs. You'll begin with basics like creating functions, choosing data types, and binding variables and then move on to more advanced concepts, such as: · Ownership and borrowing, lifetimes, and traits · Using Rust's memory safety guarantees to build fast, safe programs · Testing, error handling, and effective refactoring · Generics, smart pointers, multithreading, trait objects, and advanced pattern matching · Using Cargo, Rust's built-in package manager, to build, test, and document your code and manage dependencies · How best to use Rust's advanced compiler with compiler-led programming techniques You'll find plenty of code examples throughout the book, as well as three chapters dedicated to building complete projects to test your learning: a number guessing game, a Rust implementation of a command line tool, and a multithreaded server. New to this edition: An extended section on Rust macros, an expanded chapter on modules, and appendixes on Rust development tools and editions.**

**The Mono Project is the much talked-about open source initiative to create a Unix implementation of Microsoft's .NET Development Framework. Its purpose is to allow Unix developers to build and deploy cross-platform .NET applications. The project has also sparked interest in developing components, libraries and frameworks with C#, the programming language of .NET.The controversy? Some say Mono will become the preferred platform for Linux developers, empowering Linux/Unix developers. Others say it will allow Microsoft to embrace, extend, and extinguish Linux.**

**The controversy rages on, but—like many developers—maybe you've had enough talk and want to see what Mono is really all about.There's one way to find out: roll up your sleeves, get to work, and see what you Mono can do. How do you start? You can research Mono at length. You can play around with it, hoping to figure things out for yourself. Or, you can get straight to work with Mono: A Developer's Notebook--a hands-on guide and your trusty lab partner as you explore Mono 1.0.Light on theory and long on practical application, Mono: A Developer's Notebook bypasses the talk and theory, and jumps right into Mono 1.0. Diving quickly into a rapid tour of Mono, you'll work through nearly fifty mini-projects that will introduce you to the most important and compelling aspects of the 1.0 release. Using the task-oriented format of this new series, you'll learn how to acquire, install, and run Mono on Linux, Windows, or Mac OS X. You'll work with the various Mono components: Gtk#, the Common Language Runtime, the class libraries (both .NET and Mono-provided class libraries), IKVM and the Mono C# compiler. No other resource will take you so deeply into Mono so quickly or show you as effectively what Mono is capable of. The new Developer's Notebooks series from O'Reilly covers important new tools for software developers. Emphasizing example over explanation and practice over theory, they focus on learning by doing—you'll get the goods straight from the masters, in an informal and code-intensive style that suits developers. If you've been curious about Mono, but haven't known where to start, this no-fluff, lab-style guide is the solution.**

**This work has been selected by scholars as being culturally important, and is part of the knowledge base of civilization as we know it. This work was reproduced from the original artifact, and remains as true to the original work as possible. Therefore, you will see the original copyright references, library stamps (as most of these works have been housed in our most important libraries around the world), and other notations in the work. This work is in the public domain in the United States of America, and possibly other nations. Within the United States, you may freely copy and distribute this work, as no entity (individual or corporate) has a copyright in the body of the work.As a reproduction of a historical artifact, this work may contain missing or blurred pages, poor pictures, errant marks, etc. Scholars believe, and we concur, that this work is important enough to be preserved, reproduced, and made generally available to the public. We appreciate your support of the preservation process, and thank you for being an important part of keeping this knowledge alive and relevant.**

**Conquer Windows Server 2019—from the inside out! Dive into Windows Server 2019—and really put your Windows Server expertise to work. Focusing on Windows Server 2019's most powerful and innovative features, this supremely organized reference packs hundreds of timesaving solutions, tips, and workarounds—all you need to plan, implement, or manage Windows Server in enterprise, data center, cloud, and hybrid environments. Fully reflecting new innovations for security, hybrid cloud environments, and Hyper-Converged Infrastructure (HCI), it covers everything from cluster sets to Windows Subsystem for Linux. You'll discover how experts tackle today's essential tasks—and challenge yourself to new levels of mastery. · Optimize the full Windows Server 2019 lifecycle, from planning and configuration through rollout and administration · Leverage new configuration options including App Compatibility Features on Demand (FOD) or Desktop Experience · Ensure fast, reliable upgrades and migrations · Manage Windows servers, clients, and services through Windows Admin Center · Seamlessly deliver and administer core DNS, DHCP, file, print, storage, and internet services · Use the Storage Migration Service to simplify storage moves and configuration at the destination · Seamlessly integrate Azure IaaS and hybrid services with Windows Server 2019 · Improve agility with advanced container technologies, including container networking and integration into Kubernetes orchestration clusters · Deliver Active Directory identity, certifi cation, federation, and rights management services · Protect servers, clients, VMs, assets, and users with advanced Windows Server 2019 security features, from Just Enough Administration to shielded VMs and guarded virtualization fabrics · Monitor performance, manage event logs, configure advanced auditing, and perform backup/recovery Windows Server 2019 For Experienced Windows Server Users and IT Professionals · Your role: Experienced intermediate-to-advanced level Windows Server user or IT professional · Prerequisites: Basic understanding of Windows Server procedures, techniques, and navigation**

Rootkits

Windows Internals, Part 1

Windows PowerShell for Developers

Pro .NET Performance

Zero Day

Optimize Your C# Applications

*Delve inside Windows architecture and internals - and see how core components work behind the scenes. This classic guide has been fully updated for Windows 8.1 and Windows Server 2012 R2, and now presents its coverage in three volumes: Book 1, User Mode; Book 2, Kernel Mode; Book 3, Device Driver Models. In Book 1, you'll plumb Windows fundamentals, independent of platform - server, desktop, tablet, phone, Xbox. Coverage focuses on high-level functional descriptions of the various Windows components and features that interact with, or are manipulated by, user mode programs, or applications. You'll also examine management mechanisms and operating system components that are implemented in user mode, such as service processes. As always, you get critical insider perspectives on how Windows operates. And through hands-on experiments, you'll experience its internal behavior firsthand - knowledge you can apply to improve application design, debugging, system performance, and support. Planned chapters: Concepts & Tools; System Architecture; Windows Application Support; Windows Store Apps; Graphics & the Desktop; Management Mechanisms; User Mode Memory Management; Security; Storage; Networking; Hyper-V.*

*While forensic analysis has proven to be a valuable investigative tool in the field of computer security, utilizing anti-forensic technology makes it possible to maintain a covert operational foothold for extended periods, even in a high-security environment. Adopting an approach that favors full disclosure, the updated Second Edition of The Rootkit Arsenal presents the most accessible, timely, and complete coverage of forensic countermeasures. This book covers more topics, in greater depth, than any other currently available. In doing so the author forges through the murky back alleys of the Internet, shedding light on material that has traditionally been poorly documented, partially documented, or entirely undocumented. The range of topics presented includes how to: -Evade post-mortem analysis -Frustrate attempts to reverse engineer your command & control modules -Defeat live incident response -Undermine the process of memory analysis -Modify subsystem internals to feed misinformation to the outside -Entrench your code in fortified regions of execution -Design and implement covert channels -Unearth new avenues of attack*

*Get your guided tour through the Python 3.9 interpreter: Unlock the inner workings of the Python language, compile the Python interpreter from source code, and participate in the development of CPython. Are there certain parts of Python that just seem like magic? This book explains the concepts, ideas, and technicalities of the Python interpreter in an approachable and hands-on fashion. Once you see how Python works at the interpreter level, you can optimize your applications and fully leverage the power of Python. By the End of the Book You'll Be Able To: Read and navigate the CPython 3.9 interpreter source code. You'll deeply comprehend and appreciate the inner workings of concepts like lists, dictionaries, and generators. Make changes to the Python syntax and compile your own version of CPython, from scratch. You'll customize the Python core data types with new functionality and run CPython's automated test suite. Master Python's memory management capabilities and scale your Python code with parallelism and concurrency. Debug C and Python code like a true professional. Profile and benchmark the performance of your Python code and the runtime. Participate in the development of CPython and know how to contribute to future versions of the Python interpreter and standard library. How great would it feel to give back to the community as a "Python Core Developer?" With this book you'll cover the critical concepts behind the internals of Python and how they work with visual explanations as you go along. Each page in the book has been carefully laid out with beautiful typography, syntax highlighting for code examples. What Python Developers Say About The Book: "It's the book that I wish existed years ago when I started my Python journey. [...] After reading this book your skills will grow and you will be able solve even more complex problems that can improve our world." - Carol Willing, CPython Core Developer & Member of the CPython Steering Council "CPython Internals is a great (and unique) resource for anybody looking to take their knowledge of Python to a deeper level." - Dan Bader, Author of Python Tricks "There are a ton of books on Python which teach the language, but I haven't really come across anything that would go about explaining the internals to those curious minded." - Milan Patel, Vice President at (a major investment bank) "The First In-Depth, Real-World, Insider's Guide to Powerful Windows Debugging For Windows developers, few tasks are more challenging than debugging—or more critical. Reliable and realistic information about Windows debugging has always been scarce. Now, with over 15 years of experience two of Microsoft's system-level developers present a thorough and practical guide to Windows debugging as written by Mario Heward and Daniel Pravat cover debugging throughout the entire application lifecycle and show how to make the most of the tools currently available—including Microsoft's powerful native debuggers and third-party solutions. To help you find real solutions fast, this book is organized around real-world debugging scenarios. Heward and Pravat use detailed code examples to illuminate the complex debugging challenges professional developers actually face. From core Windows operating system concepts to security, Windows® Vista™ and 64-bit debugging, they address emerging topics head-on—and nothing is ever oversimplified or glossed over!"*

OSR Classic Reprints

System architecture, processes, threads, memory management, and more

Mastering Visual Studio .NET

Programming Windows

Active Directory

Windows Internals

*A detailed handbook for experienced developers explains how to get the most out of Microsoft's Visual Studio .NET, offering helpful guidelines on how to use its integrated development environment, start-up templates, and other features and tools to create a variety of applications, including Web services. Original. (Advanced) Get in-depth guidance—and inside insights—for using the Windows Sysinternals tools available from Microsoft TechNet. Guided by Sysinternals creator Mark Russinovich and Windows expert Aaron Margosis, you'll drill into the features and functions of dozens of free file, disk, process, security, and Windows management tools. And you'll learn how to apply the book's best practices to help resolve your own technical issues the way the experts do. Diagnose, Troubleshoot, Optimize. Analyze CPU spikes, memory leaks, and other system problems Get a comprehensive view of file, disk, registry, process/thread, and network activity Diagnose and troubleshoot issues with Active Directory Easily scan, disable, and remove autostart applications and components Monitor application debug output Generate trigger-based memory dumps for application troubleshooting Audit and analyze file digital signatures, permissions, and other security information Execute Sysinternals management tools on one or more remote computers Master Process Explorer, Process Monitor, and Autoruns*

*An in-depth exploration of the inner-workings of Android. In Volume 1, we take the perspective of the Power User as we delve into the foundations of Android, filesystems, partitions, boot process, native daemons and services. A gargantuan, mind-altering comedy about the Pursuit of Happiness in America Set in an oddities' halfway house and a tennis academy, and featuring the most endearingly screwed-up family to come along in recent fiction, Infinite Jest explores essential questions about what entertainment is and why it has come to so dominate our lives; about how our desire for entertainment affects our need to connect with other people; and about what the pleasures we choose say about who we are. Equal parts philosophical quest and screwball comedy, Infinite Jest bends every rule of fiction without sacrificing for a moment its own entertainment value. It is an exuberant, uniquely American exploration of the passions that make us human - and one of those rare books that renew the idea of what a novel can do. "The next step in fiction....Egdy, accurate, and darkly witty...Think Beckett, think Pynchon, think Gaddis. Think." --Sven Birkerts, The Atlantic*

Escape and Evasion in the Dark Corners of the System

System Architecture, Processes, Threads, Memory Management, and More, Seventh Edition

Practical Reverse Engineering

Windows Sysinternals Administrator's Reference

User Mode

Developing Drivers with the Windows Driver Foundation

This is a book for curious people. It attempts to answer the basic question "how does it work?" As such, it does not explain how to call documented APIs and DDIs to accomplish some specific goal. There is plenty of information available on these subjects, including the MSDN Library, the WDK documentation and several excellent books. Rather, its purpose is to analyze how the Virtual Memory Manager works, simply because it is something worth knowing. With a certain mindset, it might even be something fun to know. Even though this book gives a fairly detailed description of the Virtual Memory Manager, it is not reserved for experienced kernel level programmers. Parts I and II provide information on the x64 processor and enough details on kernel mode code execution to help readers approaching these subjects for the first time. This book describes the Windows 7 x64 implementation of the Virtual Memory Manager. All of the analysis and experiments have been performed on this particular version only.

Optimize Windows system reliability and performance with Sysinternals IT pros and power users consider the free Windows Sysinternals tools indispensable for diagnosing, troubleshooting, and deeply understanding the Windows platform. In this extensively updated guide, Sysinternals creator Mark Russinovich and Windows expert Aaron Margosis help you use these powerful tools to optimize any Windows system's reliability, efficiency, performance, and security. The authors first explain Sysinternals' capabilities and help you get started fast. Next, they offer in-depth coverage of each major tool, from Process Explorer and Process Monitor to Sysinternals' security and file utilities. Then, building on this knowledge, they show the tools being used to solve real-world cases involving error messages, hangs, sluggishness, malware infections, and much more. Windows Sysinternals creator Mark Russinovich and Aaron Margosis show you how to: Use Process Explorer to display detailed process and system information Use Process Monitor to capture low-level system events, and quickly filter the output to narrow down root causes List, categorize, and manage software that starts when you start or sign in to your computer, or when you run Microsoft Office or Internet Explorer Verify digital signatures of files, of running programs, and of the modules loaded in those programs Use Autoruns, Process Explorer, Sigcheck, and Process Monitor features that can identify and clean malware infestations Inspect permissions on files, keys, services, shares, and other objects Use Sysmon to monitor security-relevant events across your network Generate memory dumps when a process meets specified criteria Execute processes remotely, and close files that were opened remotely Manage Active Directory objects and trace LDAP API calls Capture detailed data about processors, memory, and clocks

Troubleshoot unbootable devices, file-in-use errors, unexplained communication, and many other problems Understand Windows core concepts that aren't well-documented elsewhere The definitive guide—fully updated for Windows 10 and Windows Server 2016 Delve inside Windows architecture and internals, and see how core components work behind the scenes. Led by a team of internals experts, this classic guide has been fully updated for Windows 10 and Windows Server 2016. Whether you are a developer or an IT professional, you'll get critical, insider perspectives on how Windows operates. And through hands-on experiments, you'll experience its internal behavior firsthand—knowledge you can apply to improve application design, debugging, system performance, and support. This book will help you: · Understand the Windows system architecture and its most important entities, such as processes and threads · Examine how processes access, auditing, and authorization, and learn about the new mechanisms in Windows 10 and Server 2016

There is nothing like the power of the kernel in Windows - but how do you write kernel drivers to take advantage of that power? This book will show you how.The book describes software kernel drivers programming for Windows. These drivers don't deal with hardware, but rather with the system itself: processes, threads, modules, registry and more. Kernel code can be used for monitoring important events, preventing some from occurring if needed. Various filters can be written that can intercept calls that a driver may be interested in.

Windows via C/C++

The Lady, Or the Tiger? - Scholar's Choice Edition

What Makes It Page?

Windows NT File System Internals

Windows Server 2019 Inside Out

A guide to rootkits describes what they are, how they work, how to build them, and how to detect them.

Analyzing how hacks are done, so as to stop them in the future Reverse engineering is the process of analyzing hardware or software and understanding it, without having access to the sourcecode or design documents. Hackers are able to reverse engineer systems and exploit what they find with scary results. Now the geophygists can use the same tools to thwart these threats. PracticalReverse Engineering goes under the hood of reverse engineeringfor security analysts, security engineers, and system programmers, so they can learn how to use these same processes to stop hackersin their tracks. The book covers x86, x64, and ARM (the first book to cover allthree); Windows kernel-mode code rootkits and drivers; virtualmachine protection techniques; and much more. Best of all, it offers a systematic approach to the material, with plenty of hands-on exercises and real-world examples. Offers a systematic approach to understanding reverseengineering, with hands-on exercises and real-world examples Covers x86, x64, and advanced RISIC machine (ARM) architectures as well as deobfuscation and virtual machine protectiontechniques Provides special coverage of Windows kernel-mode code (rootkits/drivers), a topic not often covered elsewhere, andexplains how to analyze drivers step by step Demystifies topics that have a steep learning curve Includes a bonus chapter on reverse engineering tools Practical Reverse Engineering: Using x86, x64, ARM, WindowsKernel, and Reversing Tools provides crucial, up-to-dateguidance for a broad range of IT professionals.

An airliner's controls abruptly fail mid-flight over the Atlantic. An oil tanker runs aground in Japan when its navigational system suddenly stops dead. Hospitals everywhere have to abandon their computer databases when patients die after being administered incorrect dosages of their medicine. In the Midwest, a nuclear power plant nearly becomes the next Chernobyl when its cooling system malfunctions. At first, these random computer failures seem like unrelated events. But Jeff Aiken, a former government analyst who quit in disgust after witnessing the gross errors that led up to 9/11, thinks otherwise. Jeff fears a more serious attack targeting the United States computer infrastructure is already under way. And as other menacing computer malfunctions pop up around the world, some with deadly results, he realizes that there isn't much time if he hopes to prevent an international catastrophe. Written by a global authority on cyber security, Zero Day presents a chilling "what if" scenario that, in a world completely reliant on technology, is more than possible today---it's a cataclysmic disaster just waiting to happen.

Delve inside Windows architecture and internals—and see how core components work behind the scenes. Led by three renowned internals experts, this classic guide is fully updated for Windows 7 and Windows Server 2008 R2—and now presents its coverage in two volumes. As always, you get critical insider perspectives on how Windows operates. And through hands-on experiments, you'll experience its internal behavior behind processes, threads, and jobs Go inside the Windows security model to see how it manages access, auditing, and authorization Explore the Windows networking stack from top to bottom—including APIs, BranchCache, protocol synchronization, Wow64, Hyper-V, and the registry Examine the data structures and activities behind processes, threads, and jobs Go inside the Windows security model to see how it manages access, auditing, and authorization Explore the Windows networking stack from top to bottom—including APIs, BranchCache, protocol and UDP drivers, and layered services Dig into internals hands-on using the kernel debugger, performance monitor, and other tools

Microsoft Windows Internals

Mono: A Developer's Notebook

The Windows 7 (X64) Virtual Memory Manager

Windows Kernel Programming

A Confectioner's Cookbook

x86, x64, ARM, Windows Kernel, and Obfuscation

Drill down into Windows architecture and internals, discover how core Windows components work behind the scenes, and master information you can continually apply to improve architecture, development, system administration, and support. Led by three renowned Windows internals experts, this classic guide is now fully updated for Windows 10 and 8.x. As always, you get critical insider perspectives on how Windows behaves "under the hood" with hands-on experiments that let you experience these hidden behaviors firsthand. Part 2 examines these and other key Windows 10 OS components and capabilities: Startup and shutdown The Windows Registry Windows management mechanisms WMI System mechanisms ALPC ETW Cache Manager hypervisor and virtualization UWP Activation Revised throughout, this edition also contains three entirely new chapters: Virtualization technologies Management diagnostics and tracing Caching and file system support

Master the intricacies of application development with unmanaged C++ code—straight from the experts. Jeffrey Richter's classic book is now fully revised for Windows XP, Windows Vista, and Windows Server 2008. You get in-depth, comprehensive guidance, advanced techniques, and extensive code samples to help you program Windows-based applications. Discover how to implement your applications for both 32-bit and 64-bit Windows Create and manipulate processes and jobs Schedule, manage, synchronize and deploy threads Perform asynchronous and synchronous device I/O operations with the I/O completion port Allocate memory using various techniques including virtual memory, program-mapped files, and heaps Manipulate the storage of thread stacks Build DLLs for delay-loading, API hooking, and process injection Using structured exception handling, Windows Error Recovery, and Application Restart services

"Windows NT File System Internals" examines the NT/I/O Manager, the Cache Manager, and the Memory Manager from the perspective of a software developer writing a file system driver or implementing a kernel-mode filter driver. The book provides numerous code examples, as well as the source for a complete, usable filter driver.

Windows Internals, Part 1System architecture, processes, threads, memory management, and moreMicrosoft Press

Your Guide to the Python 3 Interpreter

Subverting the Windows Kernel

Windows Internals Seventh Edition Part 1

Occupational Outlook Handbook

A Jeff Aiken Novel

Shows developers how COM operates and how to use it to create efficient and stable programs consistent with the COM philosophy, allowing disparate applications and components to work together across a variety of languages, platforms, and host machines. Original. (Advanced).