Windows NT Device Driver Development (The Windows NT Network Architect Developer Series)

Brian Sawert teaches the fundamentals of programming SCSI (Small Computer Systems Interface) devices. He relates the design philosophy behind the SCSI standard, including its evolution and variations. This book focuses on software development and addresses fundamental SCSI concepts such as how SCSI devices communicate, how commands are executed, how data is transferred, and the roles played by the initiator and the target.
The Definitive Guide to Windows API Programming, Fully Updated for Windows 7, Windows Server 2008, and Windows Vista Windows System Programming, Fourth Edition, now contains extensive new coverage of 64-bit programming, parallelism, multicore systems, and many other crucial topics. Johnson Hart's robust code examples have been updated and streamlined throughout. They have been debugged and tested in both 32-bit and 64-bit versions, on single and multiprocessor systems, and under Windows 7, Vista, Server 2008, and Windows XP. To clarify program operation, sample programs are now illustrated with dozens of screenshots. Hart systematically covers Windows externals at the API level, presenting practical coverage of all the services Windows programmers need, and emphasizing how Windows functions actually behave and interact in real-world applications. Hart begins with features used in single-process applications and gradually progresses to more sophisticated functions and multithreaded environments. Topics covered include file systems, memory management, exceptions, processes, threads, synchronization, interprocess communication, Windows services, and security. New coverage in this edition includes Leveraging parallelism and maximizing performance in multicore systems Promoting source code portability and application interoperability across Windows, Linux, and UNIX Using 64-bit address spaces and ensuring 64-bit/32-bit portability Improving performance and scalability using threads, thread pools, and completion ports Techniques to improve program reliability and performance in all systems Windows performance-enhancing API features available starting with Windows Vista, such as slim reader/writer locks and condition variables A companion Web site, jmhartsoftware.com, contains all sample code, Visual Studio projects, additional examples, errata, reader comments, and Windows commentary and discussion.
Developing Windows NT Device Drivers: A Programmer's Handbookoffers programmers a comprehensive

and in-depth guide to building device drivers for Windows NT. Written by two experienced driver developers, Edward N. Dekker and Joseph M. Newcomer, this book provides detailed coverage of techniques, tools, methods, and pitfalls to help make the often complex and byzantine "black art" of driver development straightforward and accessible. This book is designed for anyone involved in the development of Windows NT Device Drivers, particularly those working on drivers for nonstandard devices that Microsoft has not specifically supported. Because Windows NT does not permit an application program to directly manipulate hardware, a customized kernel mode device driver must be created for these nonstandard devices. And since experience has clearly shown that superficial knowledge can be hazardous when developing device drivers, the authors have taken care to explore each relevant topic in depth. This book's coverage focuses on drivers for polled, programmed I/O, interrupt-driven, and DMA devices. The authors discuss the components of a kernel mode device driver for Windows NT, including background on the two primary bus interfaces used in today's computers: the ISA and PCI buses. Developers will learn the mechanics of compilation and linking, how the drivers register themselves with the system, experience-based techniques for debugging, and how to build robust, portable, multithread- and multiprocessor-safe device drivers that work as intended and won't crash the system. The authors also show how to call the Windows NT kernel for the many services required to support a device driver and demonstrate some specialized techniques, such as mapping device memory or kernel memory into user space. Thus developers will not only learn the specific mechanics of high-quality device driver development for Windows NT, but will gain a deeper understanding of the foundations of device driver design.

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

A Developer's Guide

The Breakneck Race to Create Windows NT and the Next Generation at Microsoft

Windows 2000 Performance Guide

Pro Windows Embedded Compact 7

Undocumented Windows 2000 Secrets

The Programmer's Guide to SCSI

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

"Windows NT File System Internals" examines the NT/IO 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.

An exhaustive technical manual outlines the Windows NT concepts related to drivers; shows how to develop the best drivers for particular applications; covers the I/O Subsystem and implementation of standard kernel mode drivers; and more. Original. (Intermediate).

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 NT File System Internals

Showstopper!

Developing International Software for Windows 95 and Windows NT

Windows NT Device Driver Development

Inside Windows Storage

The Windows NT Device Driver Book

Here is the perfect book for Windows developers who want to join the forces of Windows NT developers. Each chapter attacks a specific topic of Windows NT programming, explaining how it fits into the big picture and then detailing what programmers need to know to exploit the feature or mechanism in their program.

A complete reference on using and programming the Win32 Driver Model describes how it communicates with PC peripherals, as well as its efficiency benefits in device support and development, and features a CD-ROM with sample code and portions of the WDM Device Driver Kit. Original. (Advanced).

For repairing performance loss or maximizing current potential, this guide aims to provide the information and conceptual framework that will enable readers to be performance experts. Includes information on processor performance, application profiling and hardware considerations.

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

Systems Programming for Windows 95

Building Powerful Platforms with Windows CE

Linux Device Drivers

Producing Device Drivers

Advanced Windows NT

OSR Classic Reprints

Completely updated with specific coverage of the Windows NT 4.0 Option Pack add-ons now packaged with Windows NT Server 4.0, this new edition o Microsoft Windows NT Server Administrator's Bible brings you everything you need to plan, install, configure, manage, optimize, and connect Windows Server 4.0 to the Internet -- including insider tips and stories you just won't find anywhere else. Simply put, if you're looking for the one book that will sh you how to get your server up and running fast, this is the book for you.

Windows Embedded Compact 7 is the natural choice for developing sophisticated, small-footprint devices for both consumers and the enterprise. For t latest version, a number of significant enhancements have been made, most notably the ability to run multi-core processors and address more than the MB of memory constraint in previous versions. Using familiar developer tools, Pro Windows Embedded Compact 7 will take you on a deep-dive into de driver development. You'll learn how to set up your working environment, the tools that you'll need and how to think about developing for small devices before quickly putting theory into practice and developing your own first driver from the ground up. As you delve deeper into the details of driver development, you'll learn how to master hardware details, deal with I/O and interrupts, work with networks, and test and debug your drivers ready for deployment—all in the company of an author who's been working with Windows CE for more than a decade. Packed with code samples, Pro Windows Embedded Compact 7 contains everything you'll need to start developing for small footprint devices with confidence.

An authoritative guide to Windows NT driver development, now completely revised and updated. The CD-ROM includes all source code, plus Microsof hardware standards documents, demo software, and more.

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 creat Mark Russinovich and Aaron Margosis show you how to: Use Process Explorer to display detailed process and system information Use Process Monit capture low-level system events, and quickly filter the output to narrow down root causes List, categorize, and manage software that starts when you s 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 networ Generate memory dumps when a process meets specified criteria Execute processes remotely, and close files that were opened remotely Manage Ac 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

Mastering Linux Device Driver Development

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

Microsoft Windows NT Server Administrator's Bible

A Programmer's Handbook

Open Sources

The Developer's Guide to the Win32 Application Programming Interface

Microsoft Windows NT is the foundation of the new 32-bit operating system designed to support the most powerful workstation and server systems. The initial developer support for Windows NT has been phenomenal--developers have demonstrated more than 50 Windows NT applications only months after receiving the pre-release version of the software. This authoritative text--by a member of the Windows NT development group--is a a richly detailed technical overview of the design goals and architecture of Windows NT. (Operating Systems)

Freely available source code, with contributions from thousands of programmers around the world: this is the spirit of the software revolution known as Open Source. Open Source has grabbed the computer industry's attention. Netscape has opened the source code to Mozilla; IBM supports Apache; major database vendors haved ported their products to Linux. As enterprises realize the power of the open-source development model, Open Source is becoming a viable mainstream alternative to commercial software.Now in Open Sources, leaders of Open Source come together for the first time to discuss the new vision of the software industry they have created. The essays in this volume offer insight into how the Open Source movement works, why it succeeds, and where it is going.For programmers who have labored on open-source projects, Open Sources is the new gospel: a powerful vision from the movement's spiritual leaders. For businesses integrating open-source software into their enterprise, Open Sources reveals the mysteries of how open development builds better software, and how businesses can leverage freely available software for a competitive business advantage.The contributors here have been the leaders in the open-source arena: Brian Behlendorf (Apache) Kirk McKusick (Berkeley Unix) Tim O'Reilly (Publisher, O'Reilly & Associates) Bruce Perens (Debian Project,

Open Source Initiative) Tom Paquin and Jim Hamerly (mozilla.org, Netscape) Eric Raymond (Open Source Initiative) Richard Stallman (GNU, Free Software Foundation, Emacs) Michael Tiemann (Cygnus Solutions) Linus Torvalds (Linux) Paul Vixie (Bind) Larry Wall (Perl) This book explains why the majority of the Internet's servers use open- source technologies for everything from the operating system to Web serving and email. Key technology products developed with open-source software have overtaken and surpassed the commercial efforts of billion dollar companies like Microsoft and IBM to dominate software markets. Learn the inside story of what led Netscape to decide to release its source code using the open-source mode. Learn how Cygnus Solutions builds the world's best compilers by sharing the source code. Learn why venture capitalists are eagerly watching Red Hat Software, a company that gives its key product -- Linux -- away.For the first time in print, this book presents the story of the open- source phenomenon told by the people who created this movement.Open Sources will bring you into the world of free software and show you the revolution.
Learn to develop customized device drivers for your embedded Linux system About This Book Learn to develop customized Linux device drivers Learn the core concepts of device drivers such as memory management, kernel caching, advanced IRQ management, and so on. Practical experience on the embedded side of Linux Who This Book Is For This book will help anyone who wants to get started with developing their own Linux device drivers for embedded systems. Embedded Linux users will benefit highly from this book. This book covers all about device driver development, from char drivers to network device drivers to memory management. What You Will Learn Use kernel facilities to develop powerful drivers Develop drivers for widely used I2C and SPI devices and use the regmap API Write and support devicetree from within your drivers Program advanced drivers for network and frame buffer devices Delve into the Linux irqdomain API and write interrupt controller drivers Enhance your skills with regulator and PWM frameworks Develop measurement system drivers with IIO framework Get the best from memory management and the DMA subsystem Access and manage GPIO subsystems and develop GPIO controller drivers In Detail Linux kernel is a complex, portable, modular and widely used piece of software, running on around 80% of servers and embedded systems in more than half of devices throughout the World. Device drivers play a critical role in how well a Linux system performs. As Linux has turned out to be one of the most popular operating systems used, the interest in developing proprietary device drivers is also increasing steadily. This book will initially help you understand the basics of drivers as well as prepare for the long journey through the Linux Kernel. This book then covers drivers development based on various Linux subsystems such as memory management, PWM, RTC, IIO, IRQ management, and so on. The book also offers a practical approach on direct memory access and network device drivers. By the end of this book, you will be comfortable with the concept of device driver development and will be in a position to write any device driver from scratch using the latest kernel version (v4.13 at the time of writing this book). Style and approach A set of engaging examples to develop Linux device drivers
bull; bull;The data storage market continues to grow even in the current technology downturn. Microsoft is

rapidly gaining market share in this area. bull;Other books on storage contain little or no information on Windows. bull;This book appeals both to networking professionals who need to learn about Microsoft as well as Microsoft professionals who need to learn about storage issues.

Handbook of Data Communications and Networks

Inside Windows Debugging

Windows Kernel Programming

Write custom device drivers to support computer peripherals in Linux operating systems

Essential Linux Device Drivers

Voices from the Open Source Revolution

The book is logically divided into 5 main categories with each category representing a major skill set required by most security professionals: 1. Coding – The ability to program and script is quickly becoming a mainstream requirement for just about everyone in the security industry. This section covers the basics in coding complemented with a slue of programming tips and tricks in C/C++, Java, Perl and NASL. 2. Sockets – The technology that allows programs and scripts to communicate over a network is sockets. Even though the theory remains the same – communication over TCP and UDP, sockets are implemented differently in nearly ever language. 3. Shellcode – Shellcode, commonly defined as bytecode converted from Assembly, is utilized to execute commands on remote systems via direct memory access. 4. Porting – Due to the differences between operating platforms and language implementations on those platforms, it is a common practice to modify an original body of code to work on a different platforms. This technique is known as porting and is incredible useful in the real world environments since it allows you to not "recreate the wheel. 5. Coding Tools – The culmination of the previous four sections, coding tools brings all of the techniques that you have learned to the forefront. With the background technologies and techniques you will now be able to code quick utilities that will not only make you more productive, they will arm you with an extremely valuable skill that will remain with you as long as you make the proper time and effort dedications. *Contains never before seen chapters on writing and automating exploits on windows systems with all-new exploits. *Perform zero-day exploit forensics by reverse engineering malicious code. *Provides working code and scripts in all of the most common programming languages for readers to use TODAY to defend their networks.

This is a guide book with software for programmers writing device drivers for Windows NT. This is the only book and sample software available on Device Drivers--NT.

"Building Powerful Platforms with Windows CE" is a comprehensive, practical guide on the use of the Microsoft Windows CE Platform Builder. Drawing on the authors' extensive industry experience, this book provides proven methods and real-world advice for the complete system integration of Windows CE on various platforms. It also examines how to adapt Windows CE to

support a platform's unique features. This book describes the Windows CE architecture in depth, explaining the rationale behind its design. It shows how to use the Platform Builder to quickly create a custom build of the Windows CE kernel and explores the complex and powerful Windows CE build process. Extensive information is provided on designing, implementing, and debugging Windows CE device drivers. A utility called the Driver Mapper is presented as an example device driver that doubles as a valuable tool for debugging device drivers on standard CE devices (e.g., H/PC, H/PC Pro, and Palm-sized PC devices. Other valuable features include the following: A project leader and manager's guide to the steps involved in completing a CE custom platform project Creating and debugging a CE boot loader Modifying the Platform Builder's OEM Adaptation Layer (OAL) sample source to work with a newly developed platform. An introduction to writing CE display drivers. Automated testing with the Windows CE Device Driver Test Toolkit (DDTK) A simplified, automated build process for creating ROM images If you want to get Windows CE running on your platform, you will find this hands-on guide an indispensable resource for accelerating your progress and saving you much frustration! 020161636XB04062001

Windows NT Device Driver DevelopmentNew Riders Pub

Windows System Programming

Programming the Microsoft Windows Driver Model

Linux Device Drivers Development

Developing Drivers with the Windows Driver Foundation

OpenGL Programming for Windows 95 and Windows NT

Server Storage Technologies for Windows 2000, Windows Server 2003, and Beyond

Showstopper is the dramatic, inside story of the creation of Windows NT, told by Wall Street Journal reporter G. Pascal Zachary. Driven by the legendary Bruce Cutler, a picked band of software engineers sacrifices almost everything in their lives to build a new, stable, operating system aimed at giving Microsoft a platform for growth through the next decade of development in the computing business. Comparable in many ways to the Pulitzer Prize-winning book The Soul of a New Machine by Tracy Kidder, Showstopper gets deep inside the process of software development, the lives and motivations of coders and the pressure to succeed coupled with the drive for originality and perfection that can pull a diverse team together to create a program consisting of many hundreds of thousands of lines of code. G. Pascal Zachary is a journalist, author, and teacher. He spent thirteen years as a senior writer for the Wall Street Journal (1989 to 2001) and writes regularly for newspapers, magazines, and journals, including Salon, Foreign Policy, the San Francisco Chronicle, the Wilson Quarterly, Fortune, and AlterNet. Zachary concentrates on African affairs. He also writes on globalization, America's role in world affairs, immigration, race and identity, and the dysfunctionalities and divisions in US society.

Zachary teaches journalism at Stanford University. He has lectured on various campuses, including those of MIT, Caltech, Puget Sound, UC Berkeley, Connecticut, and Tufts. He is a fellow at the Institute for Applied Economics at Johns Hopkins in Baltimore and a senior associate at the Nautilus Institute in San Francisco. Currently, he is writing a book on the political economy of sub-Saharan Africa and a memoir of his marriage to an African, the Igbo hair braider Chizo Okon. They live with their children in the San Francisco Bay Area. His personal website is www.gpascalzachary.com and he blogs at www.africaworksgpz.com.

"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

PLEASE PROVIDE DESCRIPTION

Software developer and author Karen Hazzah expands her original treatise on device drivers in the

second edition of Writing Windows VxDs and Device Drivers. The book and companion disk include the author's library of wrapper functions that allow the progr

A Programmer's Cookbook

Windows NT/2000 Native API Reference

The Windows 2000 Device Driver Book

Inside Windows NT

Windows Internals, Part 1

Develop customized drivers for embedded Linux

The object of this book is to cover most of the currently relevant areas of data communications and networks. These include: Communications protocols (especially TCP/IP) Networking (especially in Ethernet, Fast Ethernet, FDDI and ATM) Networking operating systems (especially in Windows NT, Novell NetWare and UNIX) Communications programs (especially in serial communications, parallel communications and TCP/IP) Computer hardware (especially in PC hardware, serial communications and parallel communication) The book thus splits into 15 different areas, these are: General data compression (Chapters 2 and 3) Video, images and sound (Chapters 4-11) Error coding and encryption (Chapters 12-17) TCP/IP, WWW, Internets and Intranets (Chapters 18-20 and 23) Electronic Mail (Chapter 21) HTML (Chapters 25 and 26) Java (Chapters 27-29) Communication Programs (Chapters 20, 29 and 49) Network Operating Systems (Chapters 31-34) LANs/WANs (Chapters 35, 38-46) Serial Communications (Chapters 47 and 48) Parallel Communications (Chapters 50-52) Local Communications (Chapters 53-57) Routing and Protocols (Chapters 36 and 37) Cables and connectors (Chapters 58--60) Many handbooks and reference guides on the market contain endless tables and mathematics, or are dry to read and contain very little insight in their subject area. I have tried to make this book readable, but also contain key information which can be used by professionals.

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

Explaining how and why developers can combine various low-level system calls to accomplish high-end results, this book emphasizes low-level solutions using C and C++. The CD contains sample code so programmers can work with it online.
This is a conceptual overview and data reference that allows software vendors to create localized applications for Windows and Windows NT more easily, more quickly and less expensively. Software vendors will be eager to get the scoop on the exclusive inside information found here.
Win32 Programming
Sockets, Shellcode, Porting, and Coding: Reverse Engineering Exploits and Tool Coding for Security Professionals
Writing Windows VxDs and Device Drivers
Troubleshooting with the Windows Sysinternals Tools
Developing Windows NT Device Drivers

Windows NT/2000 Native API Reference is absolutely unique. Currently, documentation on WIndows NT's native APIs can only be found through access to the source code or occasionally Web sites where people have chosen to share bits of insight gained through reverse engineering. This book provides the first complete reference to the API functions native to Windows NT and covers the set of services that are offered by Windows NT to both kernel- and user-mode programs. Ideal for the intermediate and advanced level user- and kernel-mode developers of Windows systems, this books is devoted to the NT native API and consists of documentation of the 210 routines included in the API. Also included are all the functions added in Windows 2000.
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
Ron Fosner provides tips and teaches techniques enabling Windows programmers to optimize OpenGL

performance on the Windows platform. Topics include model and view matrices, bitmaps and texturing, and manipulating OpenGL objects. Numerous programming examples in C are provided.

Master the new Windows Driver Model (WDM) common to Windows 98 and Windows 2000. You get theory, instruction and practice in driver development, installation and debugging. Addresses hardware and software interface issues, driver types, and a description of the new 'layer' model of WDM. ;

A Guide for Programmers

Writing Windows WDM Device Drivers

Windows Internals

Master the art of developing customized device drivers for your embedded Linux systems Key FeaturesStay up to date with the Linux PCI, ASoC, and V4L2 subsystems and write device drivers for themGet to grips with the Linux kernel power management infrastructureAdopt a practical approach to customizing your Linux environment using best practicesBook Description Linux is one of the fastest-growing operating systems around the world, and in the last few years, the Linux kernel has evolved significantly to support a wide variety of embedded devices with its improved subsystems and a range of new features. With this book, you'll find out how you can enhance your skills to write custom device drivers for your Linux operating system. Mastering Linux Device Driver Development provides complete coverage of kernel topics, including video and audio frameworks, that usually go unaddressed. You'll work with some of the most complex and impactful Linux kernel frameworks, such as PCI, ALSA for SoC, and Video4Linux2, and discover expert tips and best practices along the way. In addition to this, you'll understand how to make the most of frameworks such as NVMEM and Watchdog. Once you've got to grips with Linux kernel helpers, you'll advance to working with special device types such as Multi-Function Devices (MFD) followed by video and audio device drivers. By the end of this book, you'll be able to write feature-rich device drivers and integrate them with some of the most complex Linux kernel frameworks, including V4L2 and ALSA for SoC. What you will learnExplore and adopt Linux kernel helpers for locking, work deferral, and interrupt managementUnderstand the Regmap subsystem to manage memory accesses and work with the IRQ subsystemGet to grips with the PCI subsystem and write reliable drivers for PCI devicesWrite full multimedia device drivers using ALSA SoC and the V4L2 frameworkBuild power-aware device drivers using the kernel power management frameworkFind out how to get the most out of miscellaneous kernel subsystems such as NVMEM and WatchdogWho this book is for This book is for embedded developers, Linux system engineers, and system programmers who want to explore Linux kernel frameworks and subsystems. C programming skills and a basic understanding of driver development are necessary to get started with this book.

For developers who must know and understand the fundamentals to be able to apply the more advanced aspects that will emerge with NT 5, here is an in-depth book to the rescue, covering the core techniques of programming NT device drivers.