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The Art of 64-Bit Assembly, Volume 1 Introduction to 64 Bit Windows Assembly Language Programming Introduction to 64 Bit Assembly Programming for Linux and OS X Introduction to 64 Bit Windows Assembly Programming Windows 7 x64 64-Bit Computing Programming with 64-Bit ARM Assembly Language ARM 64-Bit Assembly Language Modern X86 Assembly Language Programming Modern X86 Assembly Language Programming 32/64-Bit 80x86 Assembly Language Architecture Investigation Into Porting 32-bit Applications to 64-bit on Windows Windows® 64-bit Assembly Language Programming Quick Start 32/64-Bit 80x86 Assembly Language Architecture 64-bit Assembly Programming for Linux Introduction to 64 Bit Intel Assembly Language Programming for Linux Introduction to 64 Bit Intel Assembly Language Programming The Art of Assembly Language, 2nd Edition 64-Bit Windows Server Itanium Architecture for Programmers Upgrading and Repairing PCs Network World Windows Vista in a Nutshell Modern Arm Assembly Language Programming Windows 10 in easy steps, 3rd edition Excel Power Pivot & Power Query For Dummies CompTIA A+ Certification All-in-One For Dummies SAP Hardware Solutions X86 Instruction Set Architecture Professional C# 2005 Maximum PC WiX 3.6 - A Developer's Guide to Windows Installer XML Field Programmable Logic and Application 64-Bit Windows Server Complete Self-Assessment Guide Windows Server 2008 R2 Remote Desktop Services Resource Kit Advanced Programming in the UNIX Environment OS X and iOS Kernel Programming I860 64-bit Microprocessor Hardware Reference Manual Automating with SIMATIC S7-1500 Excel 2010 Power Programming with VBA

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The increasing complexity of programming environments provides a number of opportunities for assembly language programmers. 32/64-Bit 80x86 Assembly Language Architecture attempts to break through that complexity by providing a step-by-step understanding of programming Intel and AMD 80x86 processors in assembly language. This book explains 32-bit and 64-bit 80x86 assembly language programming inclusive of the SIMD (single instruction multiple data) instruction supersets that bring the 80x86 processor into the realm of the supercomputer, gives insight into the FPU (floating-point unit) chip in every Pentium processor, and offers strategies for optimizing code. In-depth and comprehensive, this official Microsoft RESOURCE KIT delivers the information you need to plan, deploy, and administer Remote Desktop Services in Windows Server 2008 R2. You get authoritative technical guidance from those who know the technology best-leading industry experts and members of the Microsoft Desktop Virtualization Team. Coverage includes scenarios for Remote Desktop Services (formerly known as Terminal Services), virtualizing roles, setting up Remote Desktop Virtualization Host (RDVS), managing application compatibility, customizing and locking down the user experience, using Windows PowerShell for configuration and management, administering security features, deploying a farm, publishing resources, managing sessions, and other life cycle issues. In addition, the RESOURCE KIT CD features a fully searchable electronic version of the book, along with sample scripts, white papers, links to tools and videocasts, and other essential resources. For customers who purchase an ebook version of this title, instructions for downloading the CD files can be found in the ebook. This book introduces programmers to 64 bit Intel assembly language using the Microsoft Windows operating system. The book also discusses how to use the free integrated development environment, ebe, designed by the author specifically to meet the needs of assembly language programmers.Ebe is a C++ program which uses the Qt library to implement a GUI environment consisting of a source window, a data window, a register window, a floating point register window, a backtrace window, a console window, a terminal window, a project window and a pair of teaching tools called the "Toy Box" and the "Bit Bucket".The source window includes a full-featured text editor with convenient controls for assembling, linking and debugging a program. The project facility allows a program to be built from C source code files and assembly source files. Assembly is performed automatically using the yasm assembler and linking is performed with ld or gcc. Debugging operates by transparently sending commands into the gdb debugger while automatically displaying registers and variables after each debugging step.The Toy Box allows the use to enter variable definitions and expressions in either C++ or Fortran and it builds a program to evaluate the expressions. Then the user can inspect the format of each expression.The Bit Bucket allows the user to explore how the computer stores and manipulates integers and

floating point numbers.Additional information about ebe can be found at http://www.rayseyfarth.com. The book is intended as a first assembly language book for programmers experienced in high level programming in a language like C or C++.The assembly programming is performed using the yasm assembler automatically from the ebe IDE under the Linux operating system.The book primarily teaches how to write assembly code compatible with C programs. The reader will learn to call C functions from assembly language and to call assembly functions from C in addition to writing complete programs in assembly language. The gcc compiler is used internally to compile C programs.The book starts early emphasizing using ebe to debug programs. Being able to single-step assembly programs is critical in learning assembly programming. Ebe makes this far easier than using gdb directly. Highlights of the book include doing input/output programming using Windows API functions and the C library, implementing data structures in assembly language and high performance assembly language programming.Early chapters of the book rely on using the debugger to observe program behavior. After a chapter on functions, the user is prepared to use printf and scanf from the C library to perform I/O. The chapter on data structures covers singly linked lists, doubly linked circular lists, hash tables and binary trees. Test programs are presented for all these data structures. There is a chapter on optimization techniques and 3 chapters on specific optimizations. One chapter covers how to efficiently count the 1 bits in an array with the most efficient version using the recently-introduced popcnt instruction. Another chapter covers using SSE instructions to create an efficient implementation of the Sobel filtering algorithm. The final high performance programming chapter discusses computing correlation between data in 2 arrays. There is an AVX implementation which achieves 20.5 GFLOPs on a single core of a Core i7 CPU. A companion web site, http://www.rayseyfarth.com, has a collection of PDF slides which instructors can use for in-class presentations and source code for sample programs. Step-by-step guide to assembly language for the 64-bit Itanium processors, with extensive examples Details of Explicitly Parallel Instruction Computing (EPIC): Instruction set, addressing, register stack engine, predication, I/O, procedure calls, floating-point operations, and more Learn how to comprehend and optimize open source, Intel, and HP-UX compiler output Understand the full power of 64-bit Itanium EPIC processors Itanium(R) Architecture for Programmers is a comprehensive introduction to the breakthrough capabilities of the new 64-bit Itanium architecture. Using standard command-line tools and extensive examples, the authors illuminate the Itanium design within the broader context of contemporary computer architecture via a step-by-step investigation of Itanium assembly language. Coverage includes: The potential of Explicitly Parallel Instruction Computing (EPIC) Itanium instruction formats and addressing modes Innovations such as the register stack engine (RSE) and extensive predication Procedure calls and procedure-calling mechanisms Floating-point operations I/O techniques, from simple debugging to the use of files Optimization of output from open source, Intel, and HP-UX compilers An essential resource for both computing professionals and students of architecture or assembly language, Itanium Architecture for Programmers includes extensive printed and Web-based references, plus many numeric, essay, and programming exercises for each chapter. ARM 64-Bit Assembly Language carefully explains the concepts of assembly language programming, slowly building from simple examples towards complex programming on bare-metal embedded systems. Considerable emphasis is put on showing how to develop good, structured assembly code. More advanced topics such as fixed and floating point mathematics, optimization and the ARM VFP and NEON extensions are also covered. This book will help readers understand representations of, and arithmetic operations on, integral and real numbers in any base, giving them a basic understanding of processor architectures, instruction sets, and more. This resource provides an ideal introduction to the principles of 64-bit ARM assembly programming for both the professional engineer and computer engineering student, as well as the dedicated hobbyist with a 64-bit ARM-based computer. Represents the first true 64-bit ARM textbook Covers advanced topics such as fixed and floating point mathematics, optimization and ARM NEON Uses standard, free open-source tools rather than expensive proprietary tools Provides concepts that are illustrated and reinforced with a large number of tested and debugged assembly and C source listings For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce. This unique reference thoroughly documents every important setting and feature in Microsoft's new operating system, with alphabetical listings for hundreds of commands, windows, menus,

listboxes, buttons, scrollbars and other elements of Windows Vista. With this book's simple organization, you'll easily find any setting, tool, or feature for the task you want to accomplish. Along with a system overview that highlights major changes, and a tour of the basics such as manipulating files and getting around the interface, Windows Vista in a Nutshell offers alphabetized references for these topics: The User Interface: Covers the Sidebar, Aero Glass, the new Control Panel layout, and applets, as well as how to customize animated windows, the desktop, Start menu, pop-up windows on the Taskbar, and more. The File System, Drives, Data, and Search: Discusses working with the new Windows Explorer, Virtual Folders, searches, indexing, saved searches, metadata, and sharing. The Internet and Networking: Examines TCP/IP, RSS, tabbed browsing, and anti-phishing features of Internet Explorer, plus cookie handling, parental control features, and more. Networking and Wireless: Offers an illustrated, step-by-step guide to setting up a home network; covers the Network Center, Sync Center, Hot Spot access, wireless management, collaboration, and sharing. Working with Hardware: Describes how to set up, maintain, and troubleshoot hardware--including keyboards, mice, monitors, USB devices, scanners, cameras, and sound devices--and how to add, install, and troubleshoot drivers. Security: Includes the Security Center, Windows Defender, User Account Protection, System Protection, Network Access Protection, WiFi encryption, Windows Firewall, file encryption, and more. Mobility: Explains Mobility Center settings, plugging a secondary monitor into your computer, and the new "network projection" feature for making presentations. Multimedia: Covers Windows Photo Gallery, Media Player, Media Center, podcasting features, connecting to and synching with MP3 players, recording TV and videos, making videos with Windows Movie Maker, and burning CDs and DVDs. The Command Prompt: Provides commands for working with files, utilities for troubleshooting the network, and instructions on how to create your own batch files. Appendixes include information on installation, keyboard shortcuts, common filename extensions, and more. Windows Vista in a Nutshell is your one-stop source for everything you need from Microsoft's latest operating system. OS X and iOS Kernel Programming combines essential operating system and kernel architecture knowledge with a highly practical approach that will help you write effective kernel-level code. You'll learn fundamental concepts such as memory management and thread synchronization, as well as the I/O Kit framework. You'll also learn how to write your own kernel-level extensions, such as device drivers for USB and Thunderbolt devices, including networking, storage and audio drivers. OS X and iOS Kernel Programming provides an incisive and complete introduction to the XNU kernel, which runs iPhones, iPads, iPods, and Mac OS X servers and clients. Then, you'll expand your horizons to examine Mac OS X and iOS system architecture. Understanding Apple's operating systems will allow you to write efficient device drivers, such as those covered in the book, using I/O Kit. With OS X and iOS Kernel Programming, you'll: Discover classical kernel architecture topics such as memory management and thread synchronization Become well-versed in the intricacies of the kernel development process by applying kernel debugging and profiling tools Learn how to deploy your kernel-level projects and how to successfully package them Write code that interacts with hardware devices Examine easy to understand example code that can also be used in your own projects Create network filters Whether you're a hobbyist, student, or professional engineer, turn to OS X andiOS Kernel Programming and find the knowledge you need to start developing All the methods and tools you need to successfully program with Excel John Walkenbach's name is synonymous with excellence in computer books that decipher complex technical topics. With this comprehensive guide, "Mr. Spreadsheet" shows you how to maximize your Excel experience using professional spreadsheet application development tips from his own personal bookshelf. Featuring a complete introduction to Visual Basic for Applications and fully updated for the new features of Excel 2010, this essential reference includes an analysis of Excel application development and is packed with procedures, tips, and ideas for expanding Excel's capabilities with VBA. Offers an analysis of Excel application development and a complete introduction to Visual Basic for Applications (VBA) Features invaluable advice from "Mr. Spreadsheet" himself (bestselling author John Walkenbach), who demonstrates all the techniques you need to create large and small Excel applications Provides tips, tricks, and techniques for expanding Excel's capabilities with VBA that you won't find anywhere else This power-user's guide is packed with procedures, tips, and ideas for expanding Excel's capabilities with VBA. For more than twenty years, serious C programmers have relied on one book for practical, in-depth knowledge of the programming interfaces that drive the UNIX and Linux kernels: W. Richard Stevens' Advanced Programming in the UNIX® Environment. Now, once again, Rich's colleague Steve Rago has thoroughly updated this classic work. The new third edition supports today's leading platforms, reflects new technical advances and

best practices, and aligns with Version 4 of the Single UNIX Specification. Steve carefully retains the spirit and approach that have made this book so valuable. Building on Rich's pioneering work, he begins with files, directories, and processes, carefully laying the groundwork for more advanced techniques, such as signal handling and terminal I/O. He also thoroughly covers threads and multithreaded programming, and socket-based IPC. This edition covers more than seventy new interfaces, including POSIX asynchronous I/O, spin locks, barriers, and POSIX semaphores. Most obsolete interfaces have been removed, except for a few that are ubiquitous. Nearly all examples have been tested on four modern platforms: Solaris 10, Mac OS X version 10.6.8 (Darwin 10.8.0), FreeBSD 8.0, and Ubuntu version 12.04 (based on Linux 3.2). As in previous editions, you'll learn through examples, including more than ten thousand lines of downloadable, ISO C source code. More than four hundred system calls and functions are demonstrated with concise, complete programs that clearly illustrate their usage, arguments, and return values. To tie together what you've learned, the book presents several chapter-length case studies, each reflecting contemporary environments. Advanced Programming in the UNIX® Environment has helped generations of programmers write code with exceptional power, performance, and reliability. Now updated for today's systems, this third edition will be even more valuable. Professional C# 2005 prepares you to program in C#, and it provides the necessary background information on how the .NET architecture works. It provides examples of applications that use a variety of related technologies, including database access, dynamic web pages, advanced graphics, and directory access. The only requirement is that you are familiar with at least one other high-level language used on Windows—either C++, VB, or J++. It starts with a tutorial on C# and the .NET framework. This introduction assumes no prior knowledge of .NET, but it does move rapidly, on the assumption that the reader is an experienced programmer. Once this background knowledge is established, the book starts to sweep through the vast .NET class library, showing how you can use C# to solve various tasks. This comprehensive coverage is one of the key selling points of previous versions of the book, and is maintained and enhanced with this new edition by adding new chapters on Generics, ObjectSpaces, Yukon, and Indigo. Some reference material is included either as appendices or is available to download from the Wrox website. After the introduction and initial chapter, the book is divided into a number of sections that cover both the C# language and its application in a variety of areas. Coverage includes: Writing Windows applications and Windows services Writing web pages and web services with ASP.NET Manipulating XML using C# 2005 Understanding .NET Assemblies Using ADO.NET to access databases Integration with COM, COM+, and Active Directory Distributed applications with .NET Remoting Generating graphics using C# 2005 Accessing files and the Registry, and controlling .NET security Maximum PC is the magazine that every computer fanatic, PC gamer or content creator must read. Each and every issue is packed with punishing product reviews, insightful and innovative how-to stories and the illuminating technical articles that enthusiasts crave. This book contains the papers presented at the 14th International Conference on Field Programmable Logic and Applications (FPL) held during August 30th- September 1st 2004. The conference was hosted by the Interuniversity Micro- Electronics Center (IMEC) in Leuven, Belgium. The FPL series of conferences was founded in 1991 at Oxford University (UK), and has been held annually since: in Oxford (3 times), Vienna, Prague, Darmstadt, London, Tallinn, Glasgow, Villach, Belfast, Montpellier and Lisbon. It is the largest and oldest conference in reconfigurable computing and brings together academic researchers, industry experts, users and newcomers in an informal, welcoming atmosphere that encourages productive exchange of ideas and knowledge between the delegates. The fast and exciting advances in field programmable logic are increasing steadily with more and more application potential and need. New ground has been broken in architectures, design techniques, (partial) run-time reconfiguration and applications of field programmable devices in several different areas. Many of these recent innovations are reported in this volume. The size of the FPL conferences has grown significantly over the years. FPL in 2003 saw 216 papers submitted. The interest and support for FPL in the programmable logic community continued this year with 285 scientific papers submitted, demonstrating a 32% increase when compared to the year before. The technical program was assembled from 78 selected regular papers, 45 additional short papers and 29 posters, resulting in this volume of proceedings. The program also included three invited plenary keynote presentations from Xilinx, Gilder Technology Report and Altera, and three embedded tutorials from Xilinx, the Universit¨ at Karlsruhe (TH) and the University of Oslo. This book is an assembly language programming textbook introducing programmers to 64 bit Intel assembly language. The book is intended as a first assembly language book for programmers experienced in high level programming in a language like C or

C++. The assembly programming is performed using the yasm assembler (much like the nasm assembler) under the Linux operating system.The book primarily teaches how to write assembly code compatible with C programs. The reader will learn to call C functions from assembly language and to call assembly functions from C in addition to writing complete programs in assembly language. The gcc compiler is used for C programming.The book starts early emphasizing using the gdb debugger to debug programs. Being able to single-step assembly programs is critical in learning assembly programming.Highlights of the book include doing input/output programming using the Linux system calls and the C library, implementing data structures in assembly language and high performance assembly language programming. A companion web site has a collection of PDF slides which instructors can use for in-class presentations and source code for sample programs.Early chapters of the book rely on using the debugger to observe program behavior. After a chapter on functions, the user is prepared to use printf and scanf from the C library to perform I/O.The chapter on data structures covers singly linked lists, doubly linked circular lists, hash tables and binary trees. Test programs are presented for all these data structures.There is a chapter on optimization techniques and 3 chapters on specific optimizations. One chapter covers how to efficiently count the 1 bits in an array with the most efficient version using the recently-introduced popcnt instruction. Another chapter covers using SSE instructions to create an efficient implementation of the Sobel filtering algorithm. The final high performance programming chapter discusses computing correlation between data in 2 arrays. There is an AVX implementation which achieves 20.5 GFLOPs on a single core of a Core i7 CPU. Assembly is a low-level programming language that's one step above a computer's native machine language. Although assembly language is commonly used for writing device drivers, emulators, and video games, many programmers find its somewhat unfriendly syntax intimidating to learn and use. Since 1996, Randall Hyde's The Art of Assembly Language has provided a comprehensive, plain-English, and patient introduction to 32-bit x86 assembly for non-assembly programmers. Hyde's primary teaching tool, High Level Assembler (or HLA), incorporates many of the features found in high-level languages (like C, C++, and Java) to help you quickly grasp basic assembly concepts. HLA lets you write true low-level code while enjoying the benefits of high-level language programming. As you read The Art of Assembly Language, you'll learn the low-level theory fundamental to computer science and turn that understanding into real, functional code. You'll learn how to: –Edit, compile, and run HLA programs –Declare and use constants, scalar variables, pointers, arrays, structures, unions, and namespaces –Translate arithmetic expressions (integer and floating point) –Convert high-level control structures This much anticipated second edition of The Art of Assembly Language has been updated to reflect recent changes to HLA and to support Linux, Mac OS X, and FreeBSD. Whether you're new to programming or you have experience with high-level languages, The Art of Assembly Language, 2nd Edition is your essential guide to learning this complex, low-level language. Gain the fundamentals of Armv8-A 32-bit and 64-bit assembly language programming. This book emphasizes Armv8-A assembly language topics that are relevant to modern software development. It is designed to help you quickly understand Armv8-A assembly language programming and the computational resources of Arm’s SIMD platform. It also contains an abundance of source code that is structured to accelerate learning and comprehension of essential Armv8-A assembly language constructs and SIMD programming concepts. After reading this book, you will be able to code performance-optimized functions and algorithms using Armv8- A 32-bit and 64-bit assembly language. Modern Arm Assembly Language Programming accentuates the coding of Armv8-A 32-bit and 64-bit assembly language functions that are callable from C++. Multiple chapters are also devoted to Armv8-A SIMD assembly language programming. These chapters discuss how to code functions that are used in computationally intense applications such as machine learning, image processing, audio and video encoding, and computer graphics. The source code examples were developed using the GNU toolchain (g++, gas, and make) and tested on a Raspberry Pi 4 Model B running Raspbian (32-bit) and Ubuntu Server (64-bit). It is important to note that this is a book about Armv8-A assembly language programming and not the Raspberry Pi. What You Will Learn See essential details about the Armv8-A 32-bit and 64-bit architectures including data types, general purpose registers, floating-point and SIMD registers, and addressing modes Use the Armv8-A 32-bit and 64-bit instruction sets to create performance-enhancing functions that are callable from C++ Employ Armv8-A assembly language to efficiently manipulate common data types and programming constructs including integers, arrays, matrices, and user-defined structures Create assembly language functions that perform scalar floating-point arithmetic using the Armv8-A 32-bit and 64-bit instruction sets Harness the Armv8-A SIMD instruction sets to significantly accelerate

the performance of computationally intense algorithms in applications such as machine learning, image processing, computer graphics, mathematics, and statistics. Apply leading-edge coding strategies and techniques to optimally exploit the Armv8-A 32-bit and 64-bit instruction sets for maximum possible performance Who This Book Is For Software developers who are creating programs for Armv8-A platforms and want to learn how to code performance-enhancing algorithms and functions using the Armv8-A 32-bit and 64-bit instruction sets. Readers should have previous high-level language programming experience and a basic understanding of C++. People say assembly, the machine language, is a very difficult programming language. With this book I want to show you that assembly is not that difficult at all.Assembly is different and doesn't work like modern high-level languages, but once you understand how to work with it, assembly becomes easy.This book provides a practical introduction to programming in assembly. Without tormenting ourselves through the theoretical basics, we start right away and look at assembly and machine commands using practical examples. We will highlight the stumbling blocks and challenges with lowlevel programming.For this we use modern 64-bit Intel architecture and Linux. Fully updated to cover the 2019 exam release! CompTIA's A+ certification is an essential certification to building a successful IT career. Test takers must pass both 90-question exams to be certified, and this book—plus online test bank—will help you reach your certification goal. The 9 minibooks map to the exam's objectives, and include new content on Windows 10, Scripting, Linux, and mobile devices. You'll learn about how computers work, networking, computer repair and troubleshooting, security, permissions, and customer service. You'll also find test-taking advice and a review of the types of questions you'll see on the exam. Use the online test bank to test your knowledge and prepare for the exam Get up to speed on operating system basics Find out how to manage the operating system Discover maintenance and troubleshooting tips Inside is all the knowledge you need to pass the new A+ exam! This book introduces programmers to 64 bit Intel assembly language using the Microsoft Windows operating system. The book also discusses how to use the free integrated development environment, ebe, designed by the author specifically to meet the needs of assembly language programmers.Ebe is a C++ program which uses the Qt library to implement a GUI environment consisting of a source window, a data window, a register window, a floating point register window, a backtrace window, a console window, a terminal window, a project window and a pair of teaching tools called the "Toy Box" and the "Bit Bucket".The source window includes a full-featured text editor with convenient controls for assembling, linking and debugging a program. The project facility allows a program to be built from C source code files and assembly source files. Assembly is performed automatically using the yasm assembler and linking is performed with ld or gcc. Debugging operates by transparently sending commands into the gdb debugger while automatically displaying registers and variables after each debugging step.The Toy Box allows the use to enter variable definitions and expressions in either C++ or Fortran and it builds a program to evaluate the expressions. Then the user can inspect the format of each expression.The Bit Bucket allows the user to explore how the computer stores and manipulates integers and floating point numbers.Additional information about ebe can be found at http://www.rayseyfarth.com. The book is intended as a first assembly language book for programmers experienced in high level programming in a language like C or C++.The assembly programming is performed using the yasm assembler automatically from the ebe IDE under the Linux operating system.The book primarily teaches how to write assembly code compatible with C programs. The reader will learn to call C functions from assembly language and to call assembly functions from C in addition to writing complete programs in assembly language. The gcc compiler is used internally to compile C programs.The book starts early emphasizing using ebe to debug programs. Being able to single-step assembly programs is critical in learning assembly programming. Ebe makes this far easier than using gdb directly. Highlights of the book include doing input/output programming using Windows API functions and the C library, implementing data structures in assembly language and high performance assembly language programming.Early chapters of the book rely on using the debugger to observe program behavior. After a chapter on functions, the user is prepared to use printf and scanf from the C library to perform I/O. The chapter on data structures covers singly linked lists, doubly linked circular lists, hash tables and binary trees. 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which achieves 20.5 GFLOPs on a single core of a Core i7 CPU. A companion web site, http://www.rayseyfarth.com, has a collection of PDF slides which instructors can use for in-class presentations and source code for sample programs. Access to 3 hours of troubleshooting videos as well as PDFs of previous editions are available through product registration—see instructions in back pages of your eBook. For more than 25 years, Upgrading and Repairing PCs has been the world's #1 guide to PC hardware: The single source for reliable information on how PCs work, troubleshooting and fixing problems, adding hardware, optimizing performance, and building new PCs. This 22nd edition offers beefed-up coverage of the newest hardware innovations and maintenance techniques, plus more than two hours of new video. Scott Mueller delivers practical answers about PC processors, mother-boards, buses, BIOSes, memory, SSD and HDD storage, video, audio, networks, Internet connectivity, power, and much more. You'll find the industry's best coverage of diagnostics, testing, and repair—plus cutting-edge discussions of improving PC performance via overclocking and other techniques. Mueller has taught thousands of professionals in person and millions more through his books and videos—nobody knows more about keeping PCs running perfectly. Whether you're a professional technician, a small business owner trying to save money, or a home PC enthusiast, this is the only PC hardware book you need! NEW IN THIS EDITION The newest processors, including Intel's latest Core i Haswell processors and AMD's Kaveri core processors. Everything you need to know about the latest GPU technology from NVIDIA and AMD, including developments in OpenGL, DirectX, and Mantle. New firmware innovations like the InSyde BIOS, Back to BIOS buttons, and all the updated settings available for the newest processors and chipsets. The latest in updated home networking standards, from blazing fast 802.11ac Wi-Fi to HomeGrid and G.hn powerline networking. Ever larger storage, thanks to new technologies like helium-filled hard disks, shingled magnetic recording, and Cfast and XQD for flash memory. Emerging interfaces such as mSATA, USB 3.1, and M.2 Updated coverage of building PCs from scratch—from choosing and assembling hardware through BIOS setup and troubleshooting Modern X86 Assembly Language Programming shows the fundamentals of x86 assembly language programming. It focuses on the aspects of the x86 instruction set that are most relevant to application software development. The book's structure and sample code are designed to help the reader quickly understand x86 assembly language programming and the computational capabilities of the x86 platform. Please note: Book appendixes can be downloaded here: http://www.apress.com/9781484200650 Major topics of the book include the following: 32-bit core architecture, data types, internal registers, memory addressing modes, and the basic instruction set X87 core architecture, register stack, special purpose registers, floating-point encodings, and instruction set MMX technology and instruction set Streaming SIMD extensions (SSE) and Advanced Vector Extensions (AVX) including internal registers, packed integer arithmetic, packed and scalar floating-point arithmetic, and associated instruction sets 64-bit core architecture, data types, internal registers, memory addressing modes, and the basic instruction set 64-bit extensions to SSE and AVX technologies X86 assembly language optimization strategies and techniques A new assembly language programming book from a well-loved master. Art of 64-bit Assembly Language capitalizes on the long-lived success of Hyde's seminal The Art of Assembly Language. Randall Hyde's The Art of Assembly Language has been the go-to book for learning assembly language for decades. Hyde's latest work, Art of 64-bit Assembly Language is the 64-bit version of this popular text. This book guides you through the maze of assembly language programming by showing how to write assembly code that mimics operations in High-Level Languages. This leverages your HLL knowledge to rapidly understand x86-64 assembly language. This new work uses the Microsoft Macro Assembler (MASM), the most popular x86-64 assembler today. Hyde covers the standard integer set, as well as the x87 FPU, SIMD parallel instructions, SIMD scalar instructions (including high-performance floating-point instructions), and MASM's very powerful macro facilities. You'll learn in detail: how to implement high-level language data and control structures in assembly language; how to write parallel algorithms using the SIMD (single-instruction, multiple-data) instructions on the x86-64; and how to write stand alone assembly programs and assembly code to link with HLL code. You'll also learn how to optimize certain algorithms in assembly to produce faster code. A step-by-step tutorial with plenty of code and examples to improve your learning curve. If you are a developer and want to create installers for software targeting the Windows platform, then this book is for you. You'll be using plenty of XML and ought to know the basics of writing a well-formed document. No prior experience in WiX or Windows Installer is assumed. You should know your way around Visual Studio to compile projects, add project references and tweak project properties. What is our 64-Bit Windows Server

Strategy? How will variation in the actual durations of each activity be dealt with to ensure that the expected 64-Bit Windows Server results are met? Will team members regularly document their 64-Bit Windows Server work? Are there any constraints known that bear on the ability to perform 64-Bit Windows Server work? How is the team addressing them? Are improvement team members fully trained on 64-Bit Windows Server? This easy 64-Bit Windows Server self-assessment will make you the established 64-Bit Windows Server domain expert by revealing just what you need to know to be fluent and ready for any 64-Bit Windows Server challenge. How do I reduce the effort in the 64-Bit Windows Server work to be done to get problems solved? How can I ensure that plans of action include every 64-Bit Windows Server task and that every 64-Bit Windows Server outcome is in place? How will I save time investigating strategic and tactical options and ensuring 64-Bit Windows Server costs are low? How can I deliver tailored 64-Bit Windows Server advice instantly with structured going-forward plans? There's no better guide through these mind-expanding questions than acclaimed best-selling author Gerard Blokdyk. Blokdyk ensures all 64-Bit Windows Server essentials are covered, from every angle: the 64-Bit Windows Server self-assessment shows succinctly and clearly that what needs to be clarified to organize the required activities and processes so that 64-Bit Windows Server outcomes are achieved. Contains extensive criteria grounded in past and current successful projects and activities by experienced 64-Bit Windows Server practitioners. Their mastery, combined with the easy elegance of the self-assessment, provides its superior value to you in knowing how to ensure the outcome of any efforts in 64-Bit Windows Server are maximized with professional results. Your purchase includes access details to the 64-Bit Windows Server self-assessment dashboard download which gives you your dynamically prioritized projects-ready tool and shows you exactly what to do next. Your exclusive instant access details can be found in your book. This is the third edition of this assembly language programming textbook introducing programmers to 64 bit Intel assembly language. The primary addition to the third edition is the discussion of the new version of the free integrated development environment, ebe, designed by the author specifically to meet the needs of assembly language programmers. The new ebe is a C++ program using the Qt library to implement a GUI environment consisting of a source window, a data window, a register, a floating point register window, a backtrace window, a console window, a terminal window and a project window along with 2 educational tools called the "toy box" and the "bit bucket." The source window includes a full-featured text editor with convenient controls for assembling, linking and debugging a program. The project facility allows a program to be built from C source code files and assembly source files. Assembly is performed automatically using the yasm assembler and linking is performed with ld or gcc. Debugging operates by transparently sending commands into the gdb debugger while automatically displaying registers and variables after each debugging step. Additional information about ebe can be found at http: //www.rayseyfarth.com. The second important addition is support for the OS X operating system. Assembly language is similar enough between the two systems to cover in a single book. The book discusses the differences between the systems. The book is intended as a first assembly language book for programmers experienced in high level programming in a language like C or C++. The assembly programming is performed using the yasm assembler automatically from the ebe IDE under the Linux operating system. The book primarily teaches how to write assembly code compatible with C programs. The reader will learn to call C functions from assembly language and to call assembly functions from C in addition to writing complete programs in assembly language. The gcc compiler is used internally to compile C programs. The book starts early emphasizing using ebe to debug programs, along with teaching equivalent commands using gdb. Being able to single-step assembly programs is critical in learning assembly programming. Ebe makes this far easier than using gdb directly. Highlights of the book include doing input/output programming using the Linux system calls and the C library, implementing data structures in assembly language and high performance assembly language programming. Early chapters of the book rely on using the debugger to observe program behavior. After a chapter on functions, the user is prepared to use printf and scanf from the C library to perform I/O. The chapter on data structures covers singly linked lists, doubly linked circular lists, hash tables and binary trees. Test programs are presented for all these data structures. There is a chapter on optimization techniques and 3 chapters on specific optimizations. One chapter covers how to efficiently count the 1 bits in an array with the most efficient version using the recently-introduced popcnt instruction. Another chapter covers using SSE instructions to create an efficient implementation of the Sobel filtering algorithm. The final high performance programming chapter discusses computing correlation between data in 2 arrays. There is an AVX implementation which achieves 20.5

GFLOPs on a single core of a Core i7 CPU. A companion web site, http: //www.rayseyfarth.com, has a collection of PDF slides which instructors can use for in-class presentations and source code for sample programs. The goal of this text is to describe the technical design aspects of the IT infrastructure; it does not give the details of installing and customizing SAP software, nor business process reengineering. Using primarily HP products for the solution examples, the chapters guide the reader through the foundation of the systems from an IT perspective, reviews its business application and architecture and introduces the server systems, then describes data storage, high availability and recovery solutions, client PCs with front-end user interfaces, output management and printing solutions, network infrastructure and requirements, cabling designs, LANs and WANs, and connecting mySAP.com to the Internet. Both authors are members of the HP-SAP International Competence Center. Annotation copyrighted by Book News, Inc., Portland, OR A guide to PowerPivot and Power Query no data cruncher should be without! Want to familiarize yourself with the rich set of Microsoft Excel tools and reporting capabilities available from PowerPivot and Power Query? Look no further! Excel PowerPivot & Power Query For Dummies shows you how this powerful new set of tools can be leveraged to more effectively source and incorporate 'big data' Business Intelligence and Dashboard reports. You'll discover how PowerPivot and Power Query not only allow you to save time and simplify your processes, but also enable you to substantially enhance your data analysis and reporting capabilities. Gone are the days of relatively small amounts of data—today's data environment demands more from business analysts than ever before. Now, with the help of this friendly, hands-on guide, you'll learn to use PowerPivot and Power Query to expand your skill-set from the one-dimensional spreadsheet to new territories, like relational databases, data integration, and multi-dimensional reporting. Demonstrates how Power Query is used to discover, connect to, and import your data Shows you how to use PowerPivot to model data once it's been imported Offers guidance on using these tools to make analyzing data easier Written by a Microsoft MVP in the lighthearted, fun style you've come to expect from the For Dummies brand If you spend your days analyzing data, Excel PowerPivot & Power Query For Dummies will get you up and running with the rich set of Excel tools and reporting capabilities that will make your life—and work—easier. Mastering ARM hardware architecture opens a world of programming for nearly all phones and tablets including the iPhone/iPad and most Android phones. It’s also the heart of many single board computers like the Raspberry Pi. Gain the skills required to dive into the fundamentals of the ARM hardware architecture with this book and start your own projects while you develop a working knowledge of assembly language for the ARM 64-bit processor. You'll review assembly language programming for the ARM Processor in 64-bit mode and write programs for a number of single board computers, including the Nvidia Jetson Nano and the Raspberry Pi (running 64-bit Linux). The book also discusses how to target assembly language programs for Apple iPhones and iPads along with 64-Bit ARM based Android phones and tablets. It covers all the tools you require, the basics of the ARM hardware architecture, all the groups of ARM 64-Bit Assembly instructions, and how data is stored in the computer’s memory. In addition, interface apps to hardware such as the Raspberry Pi’s GPIO ports. The book covers code optimization, as well as how to inter-operate with C and Python code. Readers will develop enough background to use the official ARM reference documentation for their own projects. With Programming with 64-Bit ARM Assembly Language as your guide you’ll study how to read, reverse engineer and hack machine code, then be able to apply these new skills to study code examples and take control of both your ARM devices’ hardware and software. What You'll LearnMake operating system calls from assembly language and include other software libraries in your projects Interface apps to hardware devices such as the Raspberry Pi GPIO ports Reverse engineer and hack code Use the official ARM reference documentation for your own projects Who This Book Is For Software developers who have already learned to program in a higher-level language like Python, Java, C#, or even C and now wish to learn Assembly programming. The increasing complexity of programming environments provides a number of opportunities for assembly language programmers. 32/64-Bit 80x86 Assembly Language Architecture attempts to break through that complexity by providing a step-by-step understanding of programming Intel and AMD 80x86 processors in assembly language. This book explains 32-bit and 64-bit 80x86 assembly language programming inclusive of the SIMD (single instruction multiple data) instruction supersets that bring the 80x86 processor into the realm of the supercomputer, gives insight into the FPU (floating-point unit) chip in every Pentium processor, and offers strategies for optimizing code. This book is about programming the Intel(R) X86-X64 in assembly language using the "free" version of Microsoft(R) Visual Studio 17 software. The X86

implies the 16-bit legacy Intel(R) 8086 processor up through the 64-bit Intel(R) core i7 and even beyond. The SIMATIC S7-1500 programmable logic controller (PLC) sets standards in productivity and efficiency. By its system performance and with PROFINET as the standard interface, it ensures short system response times and a maximum of flexibility and networkability for demanding automation tasks in the entire production industry and in applications for medium-sized to high-end machines. The engineering software STEP 7 Professional operates inside TIA Portal, a user interface that is designed for intuitive operation. Functionality includes all aspects of automation: from the configuration of the controllers via programming in the IEC languages LAD, FBD, STL, and SCL up to the program test. In the book, the hardware components of the automation system S7-1500 are presented including the description of their configuration and parameterization. A comprehensive introduction into STEP 7 Professional V14 illustrates the basics of programming and troubleshooting. Beginners learn the basics of automation with Simatic S7-1500, users switching from other controllers will receive the relevant knowledge. This instant 64-Bit Windows Server self-assessment will make you the trusted 64-Bit Windows Server domain standout by revealing just what you need to know to be fluent and ready for any 64-Bit Windows Server challenge. How do I reduce the effort in the 64-Bit Windows Server work to be done to get problems solved? How can I ensure that plans of action include every 64-Bit Windows Server task and that every 64-Bit Windows Server outcome is in place? How will I save time investigating strategic and tactical options and ensuring 64-Bit Windows Server opportunity costs are low? How can I deliver tailored 64-Bit Windows Server advise instantly with structured going-forward plans? 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Your purchase includes access to the $249 value 64-Bit Windows Server self-assessment dashboard download which gives you your dynamically prioritized projects-ready tool and shows your organization exactly what to do next. Your exclusive instant access details can be found in your book. The Knowledge Solution. Stop Searching, Stand Out and Pay Off. The #1 ALL ENCOMPASSING Guide to 64-Bit Computing. An Important Message for ANYONE who wants to learn about 64-Bit Computing Quickly and Easily... ""Here's Your Chance To Skip The Struggle and Master 64-Bit Computing, With the Least Amount of Effort, In 2 Days Or Less..."" In computer architecture, 64-bit integers, memory addresses, or other data units are those that are at most 64 bits (8 octets) wide. Also, 64-bit CPU and ALU architectures are those that are based on registers, address buses, or data buses of that size. 64-bit is also a term given to a generation of computers in which 64-bit processors are the norm. 64-bit is a word size that defines certain classes of computer architecture, buses, memory and CPUs, and by extension the software that runs on them. 64-bit CPUs have existed in supercomputers since the 1970s (Cray-1, 1975) and in RISC-based workstations and servers since the early 1990s. In 2003 they were introduced to the (previously 32-bit) mainstream personal computer arena in the form of the x86-64 and 64-bit PowerPC processor architectures. A 64-bit register can store 264 = 18 446 744 073 709 551 616 different values. Without further qualification, a 64-bit computer architecture generally has integer and addressing registers that are 64 bits wide, allowing direct support for 64-bit data types and addresses. However, a CPU might have external data buses or address buses with different sizes from the registers, even larger (the 32-bit Pentium had a 64-bit data bus, for instance). The term may also refer to the size of low-level data types, such as 64-bit floating-point numbers. Get the edge, learn EVERYTHING you need to know about 64-Bit Computing, and ace any discussion, proposal and implementation with the ultimate book - guaranteed to give you the education that you need, faster than you ever dreamed possible! The information in this book can show you how to be an expert in the field of 64-Bit Computing. Are you looking to learn more about 64-Bit Computing? You're about to discover the most spectacular gold mine of 64-Bit Computing materials ever created, this book is a unique collection to help you become a master of 64-Bit Computing. This book is your ultimate resource for 64-Bit Computing. Here you will find the most up-to-date information, analysis, background and everything you need to know. In easy to read chapters, with extensive references and links to get you to know all there is to know about 64-Bit Computing right away. A quick

look inside: 64-bit, Word (computer architecture), 1-bit architecture, 12-bit, 128-bit, 16-bit, 16-bit application, 18-bit, 24-bit, 26-bit, 28-bit, 31-bit, 32-bit, 32-bit application, 36-bit, 4-bit, 48-bit, 60-bit, 8-bit, Binary pattern (image generation), Byte, Chunk (information), List of binary codes, Nibble...and Much, Much More! This book explains in-depth the real drivers and workings of 64-Bit Computing. It reduces the risk of your technology, time and resources investment decisions by enabling you to compare your understanding of 64-Bit Computing with the objectivity of experienced professionals - Grab your copy now, while you still can. This is a textbook for teaching introductory assembly language using the 64 bit instruction set for modern Intel and AMD CPUs. It assumes that users are familiar with C or C++ programming.The software tools used are the yasm assembler, the gcc compiler, the gdb debugger and the Linux operating system. The code targets Linux, though there are only minor differences in function call protocol between Linux and WIndows. These are discussed in the book, though there is no attempt to make the book apply equally well to both systems. Mac OS/X users might have an easier time since the function call semantics are the same as for Linux.It starts with basic concepts and builds up to cover integer instructions, logical instructions, floating point instructions using the XMM registers, arrays, functions, data structures and high performance programming. It also covers SSE and AVX programming with one example AVX function achieving 20.5 GFLOPS on 1 core of a Core i7 2600 CPU.The author supplies additional information, including downloadable presentation slides in PDF format and source code at http://asm.seyfarth.tv Gain the fundamentals of x86 64-bit assembly language programming and focus on the updated aspects of the x86 instruction set that are most relevant to application software development. This book covers topics including x86 64-bit programming and Advanced Vector Extensions (AVX) programming. The focus in this second edition is exclusively on 64-bit base programming architecture and AVX programming. Modern X86 Assembly Language Programming's structure and sample code are designed to help you quickly understand x86 assembly language programming and the computational capabilities of the x86 platform. After reading and using this book, you'll be able to code performance-enhancing functions and algorithms using x86 64-bit assembly language and the AVX, AVX2 and AVX-512 instruction set extensions. What You Will Learn Discover details of the x86 64-bit platform including its core architecture, data types, registers, memory addressing modes, and the basic instruction set Use the x86 64-bit instruction set to create performance-enhancing functions that are callable from a high-level language (C++) Employ x86 64-bit assembly language to efficiently manipulate common data types and programming constructs including integers, text strings, arrays, and structures Use the AVX instruction set to perform scalar floating-point arithmetic Exploit the AVX, AVX2, and AVX-512 instruction sets to significantly accelerate the performance of computationally-intense algorithms in problem domains such as image processing, computer graphics, mathematics, and statistics Apply various coding strategies and techniques to optimally exploit the x86 64-bit, AVX, AVX2, and AVX-512 instruction sets for maximum possible performance Who This Book Is For Software developers who want to learn how to write code using x86 64-bit assembly language. It's also ideal for software developers who already have a basic understanding of x86 32-bit or 64-bit assembly language programming and are interested in learning how to exploit the SIMD capabilities of AVX, AVX2 and AVX-512.