

Psp 1000 Disassembly Guide

This user's guide does far more than simply outline the ARM Cortex-M3 CPU features; it explains step-by-step how to program and implement the processor in real-world designs. It teaches readers how to utilize the complete and thumb instruction sets in order to obtain the best functionality, efficiency, and reuseability. The author, an ARM engineer who helped develop the core, provides many examples and diagrams that aid understanding. Quick reference appendices make locating specific details a snap! Whole chapters are dedicated to: Debugging using the new CoreSight technology Migrating effectively from the ARM7 Memory Protection Unit Interfaces, Exceptions, Interrupts ... and much more! The only available guide to programming and using the groundbreaking ARM Cortex-M3 processor Easy-to-understand examples, diagrams, quick reference appendices, full instruction and Thumb-2 instruction sets are included T teaches end users how to start from the ground up with the M3, and how to migrate from the ARM7

This new edition has been fully revised and updated to include extensive information on the ARM Cortex-M4 processor, providing a complete up-to-date guide to both Cortex-M3 and Cortex-M4 processors, and which enables migration from various processor architectures to the exciting world of the Cortex-M3 and M4. This book presents the background of the ARM architecture and outlines the features of the processors such as the instruction set, interrupt-handling and also demonstrates how to program and utilize the advanced features available such as the Memory Protection Unit (MPU). Chapters on getting started with IAR, Keil, gcc and CoolCox COLDE tools help beginners develop program codes. Coverage also includes the important areas of software development such as using the low power features, handling information input/output, mixed language projects with assembly and C, and other advanced topics. Two new chapters on DSP features and CMSIS-DSP software libraries, covering DSP fundamentals and how to write DSP software for the Cortex-M4 processor, including examples of using the CMSIS-DSP library, as well as useful information about the DSP capability of the Cortex-M4 processor A new chapter on the Cortex-M4 floating point unit and how to use it A new chapter on using embedded OS (based on CMSIS-RTOS), as well as details of processor features to support OS operations Various debugging techniques as well as a troubleshooting guide in the appendix topics on software porting from other architectures A full range of easy-to-understand examples, diagrams and quick reference appendices

The U.S. Army fought World War II with materiel much of which was developed in the decade prior to our entry, particularly in the period following the German blitz in Poland. Our efforts to develop munitions to the point where our armies could cope on equal terms with those of potential enemies are covered here in this, the first of three projected volumes on the history of the Ordnance Department in World War II. How well the Ordnance Department succeeded in matching the Germans in quality continues to be a matter of debate both within the Ordnance Department itself, and between the using arms and the Department. That the battle of quantity was won-with the help of a superb industrial machine-can hardly be denied. This volume, the result of diligent research by Dr. Constance McL. Green and her associates, should interest not only military men but also scientists, industrialists, and laymen in general. Among other things, it shows the urgent necessity of a directed, continuous, and intensive research program and the danger in failing to recognize and profit by developments abroad. Also shown is the inherent time interval between the drawing board and the production of the end item in quantity."

This title is out of print as of 03/02/2005. A new revised and updated edition: Secrets of Methamphetamine Manufacture, 7th Edition, will be available as of 03/08/2005.

Gamer Army

The Gun Digest Book of Exploded Gun Drawings

Electrophysiological Analysis of Synaptic Transmission

Introduction to Process Safety for Undergraduates and Engineers

Making It Work

The Art of Assembly Language, 2nd Edition

Introductory Statistics is designed for the one-semester, introduction to statistics course and is geared toward students majoring in fields other than math or engineering. This text assumes students have been exposed to intermediate algebra, and it focuses on the applications of statistical knowledge rather than the theory behind it. The foundation of this textbook is Collaborative Statistics, by Barbara Illowsky and Susan Dean. Additional topics, examples, and ample opportunities for practice have been added to each chapter. The development choices for this textbook were made with the guidance of many faculty members who are deeply involved in teaching this course. These choices led to innovations in art, terminology, and practical applications, all with a goal of increasing relevance and accessibility for students. We strove to make the discipline meaningful, so that students can draw from it a working knowledge that will enrich their future studies and help them make sense of the world around them. Coverage and Scope Chapter 1 Sampling and Data Chapter 2 Descriptive Statistics Chapter 3 Probability Topics Chapter 4 Discrete Random Variables Chapter 5 Continuous Random Variables Chapter 6 The Normal Distribution Chapter 7 The Central Limit Theorem Chapter 8 Confidence Intervals Chapter 9 Hypothesis Testing with One Sample Chapter 10 Hypothesis Testing with Two Samples Chapter 11 The Chi-Square Distribution Chapter 12 Linear Regression and Correlation Chapter 13 F Distribution and One-Way ANOVA

Phlebotomy uses large, hollow needles to remove blood specimens for lab testing or blood donation. Each step in the process carries risks - both for patients and health workers. Patients may be bruised, health workers may receive needle-stick injuries. Both can become infected with bloodborne organisms such as hepatitis B, HIV, syphilis or malaria. Moreover, each step affects the quality of the specimen and the diagnosis. A contaminated specimen will produce a misdiagnosis. Clerical errors can prove fatal. The new WHO guidelines provide recommended steps for safe phlebotomy and reiterate accepted principles for drawing, collecting blood and transporting blood to laboratories/blood banks.

This IBM® Redbooks® publication describes the features and functions the latest member of the IBM z® platform, the IBM z15TM (machine type 8561). It includes information about the IBM z15 processor design, I/O innovations, security features, and supported operating systems. The z15 is a state-of-the-art data and transaction system that delivers advanced capabilities, which are vital to any digital transformation. The z15 is designed for enhanced modularity, which is in an industry standard footprint. This system excels at the following tasks: Making use of multcloud integration services Securing data with pervasive encryption Accelerating digital transformation with agile service delivery Transforming a transactional platform into a data powerhouse Getting more out of the platform with IT Operational Analytics Accelerating digital transformation with agile service delivery Revolutionizing business processes Blending open source and Z technologies This book explains how this system uses new innovations and traditional Z strengths to satisfy growing demand for cloud, analytics, and open source technologies. With the z15 as the base, applications can run in a trusted,

reliable, and secure environment that improves operations and lessens business risk. "The security of information systems has not improved at a rate consistent with the growth and sophistication of the attacks being made against them. To address this problem, we must improve the underlying strategies and techniques used to create our systems. Specifically, we must build security in from the start, rather than append it as an afterthought. That's the point of Secure Coding in C and C++. In careful detail, this book shows software developers how to build high-quality systems that are less vulnerable to costly and even catastrophic attack. It's a book that every developer should read before the start of any serious project." –Frank Abagnale, author, lecturer, and leading consultant on fraud prevention and secure documents Learn the Root Causes of Software Vulnerabilities and How to Avoid Them Commonly exploited software vulnerabilities are usually caused by avoidable software defects. Having analyzed nearly 18,000 vulnerability reports over the past ten years, the CERT/Coordination Center (CERT/CC) has determined that a relatively small number of root causes account for most of them. This book identifies and explains these causes and shows the steps that can be taken to prevent exploitation. Moreover, this book encourages programmers to adopt security best practices and develop a security mindset that can help protect software from tomorrow's attacks, not just today's. Drawing on the CERT/CC's reports and conclusions, Robert Secord systematically identifies the program errors most likely to lead to security breaches, shows how they can be exploited, reviews the potential consequences, and presents secure alternatives. Coverage includes technical detail on how to improve the overall security of any C/C++ application Thwart buffer overflows and stack-smashing attacks that exploit insecure string manipulation logic Avoid vulnerabilities and security flaws resulting from the incorrect use of dynamic memory management functions Eliminate integer-related problems: integer overflows, sign errors, and truncation errors Correctly use formatted output functions without introducing format-string vulnerabilities Avoid I/O vulnerabilities, including race conditions Secure Coding in C and C++ presents hundreds of examples of secure code, insecure code, and exploits, implemented for Windows and Linux. If you're responsible for creating secure C or C++ software—or for keeping it safe—no other book offers you this much detailed, expert assistance.

PSP Hacks

IBM z15 (8562) Technical Guide

Global Sources Telecom Products

IBM z15 (8561) Technical Guide

Introductory Statistics

ARM® Cortex® M4 Cookbook

The popularity of the Internet and the affordability of IT hardware and software have resulted in an explosion of applications, architectures, and platforms. Workloads have changed. Many applications, including mission-critical ones, are deployed on a variety of platforms, and the System z® design has adapted to this change. It takes into account a wide range of factors, including compatibility and investment protection, to match the IT requirements of an enterprise. This IBM® Redbooks® publication discusses the IBM zEnterprise System, an IBM scalable mainframe server. IBM is taking a revolutionary approach by integrating separate platforms under the well-proven System z hardware management capabilities, while extending System z qualities of service to those platforms. The zEnterprise System consists of the IBM zEnterprise 114 central processor complex, the IBM zEnterprise Unified Resource Manager, and the IBM zEnterprise BladeCenter® Extension. The z114 is designed with improved scalability, performance, security, resiliency, availability, and virtualization. The z114 provides up to 18% improvement in uniprocessor speed and up to a 12% increase in total system capacity for z/OS®, z/VM®, and Linux on System z over the z10TM Business Class (BC). The zBX infrastructure works with the z114 to enhance System z virtualization and management through an integrated hardware platform that spans mainframe, POWER7TM, and System x technologies. The federated capacity from multiple architectures of the zEnterprise System is managed as a single pool of resources, integrating system and workload management across the environment through the Unified Resource Manager. This book provides an overview of the zEnterprise System and its functions, features, and associated software support. Greater detail is offered in areas relevant to technical planning. This book is intended for systems engineers, consultants, planners, and anyone wanting to understand the zEnterprise System functions and plan for their usage. It is not intended as an introduction to mainframes. Readers are expected to be generally familiar with existing IBM System z technology and terminology.

The Gun Digest Book of Exploded Gun Drawings is the definitive one-volume resource for collectors, gunsmiths and hobbyists, with hundreds of updated listings for modern and vintage handguns, rifles and shotguns. More than 1000 line drawings of disassembled guns are presented, with parts identified by number and a key to those numbers. This collection of "exploded guns" is the perfect aid to anyone looking to identify and order replacement parts, or take a gun apart for cleaning and simple repair, a must-have for gunsmiths, shooters and law enforcement officials. In addition to the detailed, easy-to-understand drawings of long guns and handguns of all types, this book features a resource section containing contact information for buying gun parts and supplies. The Gun Digest Book of Exploded Gun Drawings is sure to become a must-have for gunsmiths, shooters and law enforcement officials.

Diagnostics, or fault finding, is a fundamental part of an automotive technician's work, and as automotive systems become increasingly complex there is a greater need for good diagnostic skills. Advanced Automotive Fault Diagnosis is the only book to treat automotive diagnostics as a science rather than a check-list procedure. Each chapter includes basic principles and examples of a vehicle system followed by the appropriate diagnostic techniques, complete with useful diagrams, flow charts, case studies and self-assessment questions. The book will help new students develop diagnostic skills and help experienced technicians improve even further. This new edition is fully updated to the latest technological developments. Two new chapters have been added – On-board diagnostics and Oscilloscope diagnostics – and the coverage has been matched to the latest curricula of motor vehicle qualifications, including: IMI and C&G Technical Certificates and NVQs; Level 4 diagnostic units; BTEC National and Higher National qualifications from Edexcel; International Motor Vehicle qualifications such as C&G 3905; and ASE certification in the USA.

This IBM® Redbooks® publication describes the new member of the IBM z® family, IBM z14TM. IBM z14 is the trusted enterprise platform for pervasive encryption, integrating data, transactions, and insights into the data. A data-centric infrastructure must always be available with a 99.999% or better availability, have flawless data integrity, and be secured from misuse. It also must be an integrated infrastructure that can support new applications. Finally, it must have integrated capabilities that can provide new mobile capabilities with real-time analytics that are delivered by a secure cloud infrastructure. IBM z14 servers are designed with improved scalability, performance, security, resiliency, availability, and virtualization. The superscalar design allows z14 servers to deliver a record level of capacity over the prior IBM z SystemsTM. In its maximum configuration, z14 is powered by up to 170 client characterizable microprocessors (cores) running at 5.2 GHz. This configuration can run more than 146,000 million instructions per second (MIPS) and up to 32 TB of client memory. The IBM z14 Model M05 is estimated to provide up to 35% more total system capacity than the IBM z13® Model NE1. This Redbooks publication provides information about IBM z14 and its functions, features, and associated software support. More information is offered in areas that are relevant to technical planning. It is intended for systems engineers, consultants, planners, and anyone who wants to understand the IBM z servers functions and plan for their usage. It is intended as an introduction to mainframes. Readers are expected to be generally familiar with existing IBM z technology and terminology.

A guide to attacking embedded systems and protecting them against the most common hardware attacks

The Performance Economy

Introducing IBM Z System Recovery Boost

PC Magazine

Working Guide to Petroleum and Natural Gas Production Engineering

Planning Munitions for War

This updated and revised edition outlines strategies and models for how to use technology and knowledge to improve performance, create jobs and increase income. It shows what skills will be required to produce, sell and manage performance over time, and how manual jobs can contribute to reduce the consumption of non-renewable resources.

Reviews the circumstances surrounding the Challenger accident to establish the probable cause or causes of the accident. Develops recommendations for corrective or other action based upon the Commission's findings and determinations. Color photos, charts and tables.

With "PSP Hacks," readers can accomplish more than good gaming on the PSP—they'll quickly learn to surf the Web with a PSP, chat in IRC, and use the PSP to read Web Comics, ebooks, and RSS feeds.

Hailed as a "must-have textbook" (CHOICE, January 2010), the first edition of Game Engine Architecture provided readers with a complete guide to the theory and practice of game engine software development. Updating the content to match today's landscape of game engine architecture, this second edition continues to thoroughly cover the major components that make up a typical commercial game engine. New to the Second Edition Information on new topics, including the latest variant of the C++ programming language, C++11, and the architecture of the eighth generation of gaming consoles, the Xbox One and PlayStation 4 New chapter on audio technology covering the fundamentals of the physics, mathematics, and technology that go into creating an AAA game audio engine Updated sections on multicore programming, pipelined CPU architecture and optimization, localization, pseudovectors and Grassman algebra, dual quaternions, SIMD vector math, memory alignment, and anti-aliasing Insight into the making of Naughty Dog's latest hit, The Last of Us The book presents the theory underlying various subsystems that comprise a commercial game engine as well as the data structures, algorithms, and software interfaces that are typically used to implement them. It primarily focuses on the engine itself, including a host of low-level foundation systems, the rendering engine, the collision system, the physics simulation, character animation, and audio. An in-depth discussion on the "gameplay foundation layer" delves into the game's object model, world editor, event system, and scripting system. The text also touches on some aspects of gameplay programming, including player mechanics, cameras, and AI. An awareness-building tool and a jumping-off point for further learning, Game Engine Architecture, Second Edition gives readers a solid understanding of both the theory and common practices employed within each of the engineering disciplines covered. The book will help readers on their journey through this fascinating and multifaceted field.

IBM z13s Technical Guide

Cool Hacks, Mods, and Customizations for the Sony®PlayStation®Portable

CISSP All-in-One Exam Guide, 6th Edition

The Definitive Guide to the ARM Cortex-M3

Game Engine Architecture, Second Edition

A Sanitation Ordinance and Code

This IBM® Redbooks® publication describes the features and functions the latest member of the IBM z® platform, the IBM z15TM Model T02 (machine type 8562). It includes information about the IBM z15 processor design, I/O innovations, security features, and supported operating systems. The z15 is a state-of-the-art data and transaction system that delivers advanced capabilities, which are vital to any digital transformation. The z15 is designed for enhanced modularity, which is in an industry standard footprint. This system excels at the following tasks: Making use of multcloud integration services Securing data with pervasive encryption Accelerating digital transformation with agile service delivery Transforming a transactional platform into a data powerhouse Getting more out of the platform with IT Operational Analytics Accelerating digital transformation with agile service delivery Revolutionizing business processes Blending open source and Z technologies This book explains how this system uses new innovations and traditional Z strengths to satisfy growing demand for cloud, analytics, and open source technologies. With the z15 as the base, applications can run in a trusted, reliable, and secure environment that improves operations and lessens business risk.

A complete, up-to-date revision of the leading CISSP training resource from the #1 name in IT security certification and training. Shon Harris Fully revised for the latest release of the Certified Information Systems Security Professional exam, this comprehensive, up-to-date resource covers all 10 CISSP exam domains developed by the International Information Systems Security Certification Consortium (ISCC). This authoritative exam guide features learning objectives at the beginning of each chapter, exam tips, practice questions, and in-depth explanations. Written by the leading expert in IT security certification and training, CISSP All-in-One Exam Guide, Sixth Edition helps you pass the exam with ease and also serves as an essential on-the-job reference. Covers all 10 CISSP exam domains: Information security governance and risk management Access control Security architecture and design Physical and environmental security Telecommunications and network security Cryptography Business continuity and disaster recovery Legal, regulations, compliance, and investigations Software development Security Security operations Electronic content includes: 1400+ practice exam questions in a Windows-based test engine with a new custom exam generation feature that allows you to practice by domain or take a complete CISSP practice exam Video training module from Shon Harris—single domain

View movies and pictures Listen to music Browse the web Increase memory Customize their favorite games Upgrade PSP hardware and software Integrate the iPod into the PSP world Use any memory stick with the PSP Listen to MP3s and watch music videos from the PSP Fast network speeds with 802.11n Express (integrated 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.

Pentium 4 and Core2 microprocessors. The text is written for students who need to learn about the programming and interfacing of Intel microprocessors, which have gained wide and at times exclusive application in many areas of electronics, communications, and control systems, particularly in desktop computer systems. A major new feature of this eighth edition is an explanation of how to interface C/C++ using Visual C++ Express (a free download from Microsoft) with assembly language for both the older DOS and the Windows environments. Many applications include Visual C++ as a basis for learning assembly language using the inline assembler. Updated sections that detail new events in the fields of microprocessors and microprocessor interfacing have been added. Organized in an orderly and manageable format, this text offers more than 200 programming examples using the Microsoft Macro Assembler program and provides a thorough description of each of the Intel family members, memory systems, and various I/O systems.

Practical Hardware Pentesting

Including Recipes for MDMA, Ecstasy, and Other Psychedelic Amphetamines

The Intel Microprocessors

PSP Hacks, Mods, and Expansions

The Vending of Food and Beverages

Report of the Presidential Commission on the Space Shuttle Challenger Accident

Microcontrollers are present in many new and existing electronic products, and the PIC microcontroller is a leading processor in the embedded applications market. Students and development engineers need to be able to design new products using microcontrollers, and this book explains from first principles how to use the universal development language C to create new PIC based systems, as well as the associated hardware interfacing principles. The book includes many source code listings, circuit schematics and hardware block diagrams. It describes the internal hardware of 8-bit PIC microcontroller, outlines the development systems available to write and test C programs, and shows how to use CCS C to create PIC firmware. In addition, simple interfacing principles are explained, a demonstration program for the PIC mechatronics development board provided and some typical applications outlined. *Focuses on the C programming language which is by far the most popular for microcontrollers (MCUs) *Features Proteus VSMg the most complete microcontroller simulator on the market, along with CCS PCM C compiler, both are highly compatible with Microchip tools *Extensive downloadable content including fully worked examples

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 enumerations /Turn expressions (integers 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.

Electrophysiology is one of the finest approaches capable of detecting and analyzing electrical events in the brain. However, like all other experimental approaches, it has its limitations. This book was created to serve as a guide for those endeavoring to understand the function of electrophysiology and its underlying components: neurons, neural systems, and the brain.

It introduces and highlights important topics in the field of electrophysiology, while also extending these topics to practical electrophysiological approaches through the perspective of the two authors. This book is ideal for graduate students or junior postdoctoral fellows interested in starting a journey in synaptic neuroscience.

Provides information on getting the most out of a PSP, covering such topics as playing multiplayer games wirelessly, reading the comics, changing game backgrounds, and finding free downloads.

Secrets of Methamphetamine Manufacture

Multimedia

Procurement and Supply

Best Practices in Phlebotomy

IBM z14 (3906) Technical Guide

The complex material histories of the Nintendo Entertainment System platform, from code to silicon, focusing on its technical constraints and its expressive affordances. In the 1987 Nintendo Entertainment System videogame Zelda II: The Adventure of Link, a character famously declared: I AM ERROR. Puzzled players assumed that this cryptic message was a programming flaw, but it was actually a clumsy Japanese-English translation of "My Name is Error," a benign programmer's joke. In I AM ERROR Nathan Altice explores the complex material histories of the Nintendo Entertainment System (and its Japanese predecessor, the Family Computer), offering a detailed analysis of its programming and engineering, its expressive affordances, and its cultural significance. Nintendo games were rife with mistranslated texts, but, as Altice explains, Nintendo's translation challenges were not just linguistic but also material, with consequences beyond simple misinterpretation. Emphasizing the technical and material evolution of Nintendo's first cartridge-based platform, Altice describes the development of the Family Computer (or Famicom) and its computational architecture; the "translation" problems faced while adapting the Famicom for the U.S. videogame market as the redesigned Entertainment System; Nintendo's breakthrough console title Super Mario Bros. and its remarkable software innovations; the introduction of Nintendo's short-lived proprietary disk format and the design repercussions on the Legend of Zelda; Nintendo's efforts to extend their console's lifespan through cartridge augmentations; the Famicom's Audio Processing Unit (APU) and its importance for the chiptunes genre; and the emergence of software emulators and the new kinds of play they enabled.

Explore embedded systems pentesting by applying the most common attack techniques and patterns Key Features Learn various pentesting tools and techniques to attack and secure your hardware infrastructure Find the glitches in your hardware that can be a possible entry point for attacks Discover best practices for securely designing products Book Description Hardware pentesting involves leveraging hardware interfaces and communication channels to find vulnerabilities in a device. Practical Hardware Pentesting will help you to plan attacks, hack your embedded devices, and secure the hardware infrastructure. Throughout the book, you will see how a specific device works, explore the functional and security aspects, and learn how a system senses and communicates with the outside world. You will start by setting up your lab from scratch and then gradually work with an advanced hardware lab. The book will help you get to grips with the global architecture of an embedded system and sniff on-board traffic. You will also learn how to identify and formalize threats to the embedded system and understand its relationship with its ecosystem. Later, you will discover how to analyze your hardware and locate its possible system vulnerabilities before going on to explore firmware dumping, analysis, and exploitation. Finally, focusing on the reverse engineering process from an attacker point of view allow you to understand how devices are attacked, how they are compromised, and how you can harden a device against the most common hardware attack vectors. By the end of this book, you will be well-versed with security best practices and understand how they can be implemented to secure your hardware. What you will learn Perform an embedded system test and identify security critical functionalities Locate critical security components and buses and learn how to attack them Discover how to dump and modify stored information Understand and exploit the relationship between the firmware and hardware Identify and attack the security functions supported by the functional blocks of the device Develop an attack lab to support advanced device analysis and attacks Who this book is for This book is for security professionals and researchers who want to get started with hardware security assessment but don't know where to start. Electrical engineers who want to understand how their devices can be attacked and how to protect against these attacks will also find this book useful.

This IBM® Redpaper publication introduces the System Recovery Boost, which is a new function of the IBM z15TM system. System Recovery Boost delivers substantially faster system shutdown and restart, short duration recovery process boosts for sysplex events, and fast catch-up of an accumulated backlog of work after specific events (such as system restart).

In this timely and thrilling novel, Ender's Game meets Ready Player One and several terabytes of fast-paced video game action as five gamers are recruited into a tech giant's secret program.

Programming 8-bit PIC Microcontrollers in C

The Definitive Guide to ARM® Cortex® M3 and Cortex® M4 Processors

I Am Error

with Interactive Hardware Simulation

IBM zEnterprise 114 Technical Guide

Secure Coding in C and C++

The Definitive Guide to the ARM Cortex-M0 is a guide for users of ARM Cortex-M0 microcontrollers. It presents many examples to make it easy for novice embedded-software developers to use the full 32-bit ARM Cortex-M0 processor. It provides an overview of ARM and ARM processors and discusses the benefits of ARM Cortex-M0 over 8-bit or 16-bit devices in terms of energy efficiency, code density, and ease of use, as well as their features and applications. The book describes the architecture of the Cortex-M0 processor and the programmers model, as well as Cortex-M0 programming and instruction set and how these instructions are used to carry out various operations. Furthermore, it considers how the memory architecture of the Cortex-M0 processor affects software development; Nested Vectored Interrupt Controller (NVIC) and the features it supports, including flexible interrupt management, nested interrupt support, vectored exception entry, and interrupt masking; and Cortex-M0 features that target the embedded operating system. It also explains how to develop simple applications on the Cortex-M0, how to program the Cortex-M0 microcontrollers in assembly and mixed-assembly languages, and how the low-power features of the Cortex-M0 processor are used in products. Finally, it offers extensive information on hardware interfaces and communication channels to find vulnerabilities in a device. Practical Hardware Pentesting will help you to plan attacks, hack your embedded devices, and secure the hardware infrastructure. Throughout the book, you will see how a specific device works, explore the functional and security aspects, and learn how a system senses and communicates with the outside world. You will start by setting up your lab from scratch and then gradually work with an advanced hardware lab. The book will help you get to grips with the global architecture of an embedded system and sniff on-board traffic. You will also learn how to identify and formalize threats to the embedded system and understand its relationship with its ecosystem. Later, you will discover how to analyze your hardware and locate its possible system vulnerabilities before going on to explore firmware dumping, analysis, and exploitation. Finally, focusing on the reverse engineering process from an attacker point of view allow you to understand how devices are attacked, how they are compromised, and how you can harden a device against the most common hardware attack vectors. By the end of this book, you will be well-versed with security best practices and understand how they can be implemented to secure your hardware. What you will learn Perform an embedded system test and identify security critical functionalities

Locate critical security components and buses and learn how to attack them Discover how to dump and modify stored information Understand and exploit the relationship between the firmware and hardware Identify and attack the security functions supported by the functional blocks of the device Develop an attack lab to support advanced device analysis and attacks Who this book is for This book is for security professionals and researchers who want to get started with hardware security assessment but don't know where to start. Electrical engineers who want to understand how their devices can be attacked and how to protect against these attacks will also find this book useful.

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The Definitive Guide to ARM® Cortex® M3 and Cortex® M4 Processors

I Am Error

with Interactive Hardware Simulation

IBM zEnterprise 114 Technical Guide

Secure Coding in C and C++

The Definitive Guide to the ARM Cortex-M0 is a guide for users of ARM Cortex-M0 microcontrollers. It presents many examples to make it easy for novice embedded-software developers to use the full 32-bit ARM Cortex-M0 processor. It provides an overview of ARM and ARM processors and discusses the benefits of ARM Cortex-M0 over 8-bit or 16-bit devices in terms of energy efficiency, code density, and ease of use, as well as their features and applications. The book describes the architecture of the Cortex-M0 processor and the programmers model, as well as Cortex-M0 programming and instruction set and how these instructions are used to carry out various operations. Furthermore, it considers how the memory architecture of the Cortex-M0 processor affects software development; Nested Vectored Interrupt Controller (NVIC) and the features it supports, including flexible interrupt management, nested interrupt support, vectored exception entry, and interrupt masking; and Cortex-M0 features that target the embedded operating system. It also explains how to develop simple applications on the Cortex-M0, how to program the Cortex-M0 microcontrollers in assembly and mixed-assembly languages, and how the low-power features of the Cortex-M0 processor are used in products. Finally, it offers extensive information on hardware interfaces and communication channels to find vulnerabilities in a device. Practical Hardware Pentesting will help you to plan attacks, hack your embedded devices, and secure the hardware infrastructure. Throughout the book, you will see how a specific device works, explore the functional and security aspects, and learn how a system senses and communicates with the outside world. You will start by setting up your lab from scratch and then gradually work with an advanced hardware lab. The book will help you get to grips with the global architecture of an embedded system and sniff on-board traffic. You will also learn how to identify and formalize threats to the embedded system and understand its relationship with its ecosystem. Later, you will discover how to analyze your hardware and locate its possible system vulnerabilities before going on to explore firmware dumping, analysis, and exploitation. Finally, focusing on the reverse engineering process from an attacker point of view allow you to understand how devices are attacked, how they are compromised, and how you can harden a device against the most common hardware attack vectors. By the end of this book, you will be well-versed with security best practices and understand how they can be implemented to secure your hardware. What you will learn Perform an embedded system test and identify security critical functionalities

Locate critical security components and buses and learn how to attack them Discover how to dump and modify stored information Understand and exploit the relationship between the firmware and hardware Identify and attack the security functions supported by the functional blocks of the device Develop an attack lab to support advanced device analysis and attacks Who this book is for This book is for security professionals and researchers who want to get started with hardware security assessment but don't know where to start. Electrical engineers who want to understand how their devices can be attacked and how to protect against these attacks will also find this book useful.

This IBM® Redpaper publication introduces the System Recovery Boost, which is a new function of the IBM z15TM system. System Recovery Boost delivers substantially faster system shutdown and restart, short duration recovery process boosts for sysplex events, and fast catch-up of an accumulated backlog of work after specific events (such as system restart).

In this timely and thrilling novel, Ender's Game meets Ready Player One and several terabytes of fast-paced video game action as five gamers are recruited into a tech giant's secret program.