

Writing Secure Code 2nd Edition Developer Best Practices

Considered the gold-standard reference on information security, the Information Security Management Handbook provides an authoritative compilation of the fundamental knowledge, skills, techniques, and tools required of today's IT security professional. Now in its sixth edition, this 3200 page, 4 volume stand-alone reference is organized under the C

Hacking the Code has over 400 pages of dedicated exploit, vulnerability, and tool code with corresponding instruction. Unlike other security and programming books that dedicate hundreds of pages to architecture and theory based flaws and exploits, Hacking the Code dives right into deep code analysis. Previously undisclosed security research in combination with superior programming techniques from Foundstone and other respected organizations is included in both the Local and Remote Code sections of the book. The book is accompanied with a FREE COMPANION CD containing both commented and uncommented versions of the source code examples presented throughout the book. In addition to the book source code, the CD also contains a copy of the author-developed Hacker Code Library v1.0. The Hacker Code Library includes multiple attack classes and functions that can be utilized to quickly create security programs and scripts. These classes and functions simplify exploit and vulnerability tool development to an extent never before possible with publicly available software. Learn to quickly create security tools that ease the burden of software testing and network administration Find out about key security issues regarding vulnerabilities, exploits, programming flaws, and secure code development Discover the differences in numerous types of web-based attacks so that developers can create proper quality assurance testing procedures and tools Learn to automate quality assurance, management, and development tasks and procedures for testing systems and applications Learn to write complex Snort rules based solely upon traffic generated by network tools and exploits

"This book identifies key issues in the relationship between ICT and law, ethics, politics and social policy, drawing attention to diverse global approaches to the challenges posed by ICT to access rights"--Provided by publisher.

ASP.NET 4 is the principal standard for creating dynamic web pages on the Windows platform. Pro ASP.NET 4 in VB 2010 raises the bar for high-quality, practical advice on learning and deploying Microsoft's dynamic web solution. This edition is updated with everything you need to come to grips with version 4 of ASP.NET, including coverage of ASP.NET MVC, ASP.NET AJAX 4, ASP.NET Dynamic Data, and Silverlight 3. Seasoned .NET professionals Matthew MacDonald and Mario Szpuszta explain how you can get the most from these groundbreaking new technologies. They cover ASP.NET 4 as a whole, illustrating both the brand-new features and the functionality carried over from previous versions of ASP. This book will give you the knowledge you need to code real ASP.NET 4 applications in the best possible style.

These puzzles and mind-benders serve as a way to train logic and help developers, hackers, and system administrators discover unconventional solutions to common IT problems. Users will learn to find bugs in source code, write exploits, and solve nonstandard coding tasks and hacker puzzles. Cryptographic puzzles, puzzles for Linux and Windows hackers, coding puzzles, and puzzles for web designers are included.

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 tens of thousands of vulnerability reports since 1988, CERT has determined that a relatively small number of root causes account for most of the vulnerabilities. Secure Coding in C and C++, Second Edition, identifies and explains these root causes and shows the steps that can be taken to prevent exploitation. Moreover, this book encourages programmers to adopt security best practices and to develop a security mindset that can help protect software from tomorrow's attacks, not just today's. Drawing on the CERT's reports and conclusions, Robert C. Seacord 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 or C++ application Thwart buffer overflows, stack-smashing, and return-oriented programming 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 resulting from signed integer overflows, unsigned integer wrapping, and truncation errors Perform secure I/O, avoiding file system vulnerabilities Correctly use formatted output functions without introducing format-string vulnerabilities Avoid race conditions and other exploitable vulnerabilities while developing concurrent code The second edition features Updates for C11 and C++11 Significant revisions to chapters on strings, dynamic memory management, and integer security A new chapter on concurrency Access to the online secure coding course offered through Carnegie Mellon's Open Learning Initiative (OLI) Secure Coding in C and C++, Second Edition, 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.

The authors look at the problem of bad code in a new way. Packed with advice based on the authors' decades of experience in the computer security field, this concise and highly readable book explains why so much code today is filled with vulnerabilities, and tells readers what they must do to avoid writing code that can be exploited by attackers. Writing secure code isn't easy, and there are no quick fixes to bad code. To build code that repels attack, readers need to be vigilant through each stage of the entire code lifecycle: Architecture, Design, Implementation, Testing and Operations. Beyond the technical, Secure Coding sheds new light on the economic, psychological, and sheer practical reasons why security vulnerabilities are so ubiquitous today. It presents a new way of thinking about these vulnerabilities and ways that developers can compensate for

the factors that have produced such unsecured software in the past.

The only comprehensive set of guidelines for secure Java programming - from the field's leading organizations, CERT and Oracle • •Authoritative, end-to-end code-level requirements for building secure systems with any recent version of Java, including the new Java 7 •Presents techniques that also improve safety, reliability, dependability, robustness, availability, maintainability, and other attributes of quality. •Includes extensive risk assessment guidance, plus references for further information. This is the first authoritative, comprehensive compilation of code-level requirements for building secure systems in Java. Organized by CERT's pioneering software security experts, with support from Oracle's own Java platform developers, it covers every facet of secure software coding with Java 7 SE and Java 6 SE, and offers value even to developers working with other Java versions. The authors itemize the most common coding errors leading to vulnerabilities in Java programs, and provide specific guidelines for avoiding each of them. They show how to produce programs that are not only secure, but also safer, more reliable, more robust, and easier to maintain. After a high-level introduction to Java application security, eighteen consistently-organized chapters detail specific guidelines for each facet of Java development. Each set of guidelines defines conformance, presents both noncompliant examples and corresponding compliant solutions, shows how to assess risk, and offers references for further information. To limit this book's size, the authors focus on 'normative requirements': strict rules for what programmers must do for their work to be secure, as defined by conformance to specific standards that can be tested through automated analysis software. (Note: A follow-up book will present 'non-normative requirements': recommendations for what Java developers typically 'should' do to further strengthen program security beyond testable 'requirements'.)

????????????????????,????????????????,??,??.

To celebrate recent innovations, and to demonstrate Apress' commitment to the ASP.NET market, we are publishing a special edition of Pro ASP.NET 2.0 in VB 2005, with new chapters explaining how to use these important new technologies. On top of the book's already extensive coverage, readers will learn how to create Ajax and Atlas applications in ASP.NET 2.0. They will be treated to a deeper coverage of ASP.NET 2.0 Performance Tuning and will be given a slew of bonus material to truly make this special edition special. This includes a free eBook of the title's content and a bonus 150 page eBook of carefully selected ASP.NET 2.0 articles.

Information Assurance and Security Ethics in Complex Systems: Interdisciplinary Perspectives offers insight into social and ethical challenges presented by modern technology. Aimed at students and practitioners in the rapidly growing field of information assurance and security, this book address issues of privacy, access, safety, liability and reliability in a manner that asks readers to think about how the social context is shaping technology and how technology is shaping social context and, in so doing, to rethink conceptual boundaries.

Password sniffing, spoofing, buffer overflows, and denial of service: these are only a few of the attacks on today's computer systems and networks. At the root of this epidemic is poorly written, poorly tested, and insecure code that puts everyone at risk. Clearly, today's developers need help figuring out how to write code that attackers won't be able to exploit. But writing such code is surprisingly difficult. Secure Programming Cookbook for C and C++ is an important new resource for developers serious about writing secure code. It contains a wealth of solutions to problems faced by those who care about the security of their applications. It covers a wide range of topics, including safe initialization, access control, input validation, symmetric and public key cryptography, cryptographic hashes and MACs, authentication and key exchange, PKI, random numbers, and anti-tampering. The rich set of code samples provided in the book's more than 200 recipes will help programmers secure the C and C++ programs they write for both Unix® (including Linux®) and Windows® environments. Readers will learn: How to avoid common programming errors, such as buffer overflows, race conditions, and format string problems How to properly SSL-enable applications How to create secure channels for client-server communication without SSL How to integrate Public Key Infrastructure (PKI) into applications Best practices for using cryptography properly Techniques and strategies for properly validating input to programs How to launch programs securely How to use file access mechanisms properly Techniques for protecting applications from reverse engineering The book's web site supplements the book by providing a place to post new recipes, including those written in additional languages like Perl, Java, and Python. Monthly prizes will reward the best recipes submitted by readers. Secure Programming Cookbook for C and C++ is destined to become an essential part of any developer's library, a code companion developers will turn to again and again as they seek to protect their systems from attackers and reduce the risks they face in today's dangerous world.

Keep black-hat hackers at bay with the tips and techniques in this entertaining, eye-opening book! Developers will learn how to padlock their applications throughout the entire development process—from designing secure applications to writing robust code that can withstand repeated attacks to testing applications for security flaws. Easily digested chapters reveal proven principles, strategies, and coding techniques. The authors—two battle-scarred veterans who have solved some of the industry's toughest security problems—provide sample code in several languages. This edition includes updated information about threat modeling, designing a security process, international issues, file-system issues, adding privacy to applications, and performing security code reviews. It also includes enhanced coverage of buffer overruns, Microsoft .NET security, and Microsoft ActiveX development, plus practical checklists for developers, testers, and program managers.

On behalf of the Organizing Committee for this event, we are glad to welcome you to IWASE 2006, the First International Workshop on Advanced Software Engineering. We hope you will enjoy the traditional Chilean hospitality and, of course, please tell us how we can make your visit a pleasant and useful experience. The goal of this Workshop is to create a new forum for researchers, professionals and educators to discuss advanced software engineering topics. A distinctive feature of this Workshop is its attempt to foster interactions between the Latin-American software engineering community and computer scientists around the world. This is an opportunity to discuss with other researchers or simply to meet new colleagues. IWASE 2006 has been organized to facilitate strong interactions among those attending it and to offer ample time for discussing each paper. IWASE 2006 attracted 28 submissions from 14 countries, 8 of them outside Latin-America. Each of the 28 articles was reviewed by at least three members of the Program Committee. As a result of this rigorous reviewing process, 13 papers were

