Steps To Perform Dynamic Analysis By Etabs

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Computer Aided Analysis and Optimization of Mechanical System Dynamics Academic Press Incorporated

Dynamic Analysis of Structures reflects the latest application of structural dynamics theory to produce more optimal and economical structural designs. Written by an author with over 37 years of researching, teaching and writing experience, this reference introduces complex structural dynamics concepts in a user-friendly manner. The author includes carefully worked-out examples which are solved utilizing more recent numerical methods. These examples pave the way to more accurately simulate the behavior of various types of structures. The essential topics covered include principles of structural dynamics applied to particles, rigid and deformable bodies, thus enabling the formulation of equations for the motion of any structure. - Covers the tools and techniques needed to build realistic modeling of actual structures under dynamic loads - Provides the methods to formulate the equations of motion of any structure, no matter how complex it is, once the dynamic model has been adopted - Provides carefully worked-out examples that are solved using recent numerical methods

100 Java Mistakes and How to Avoid Them BoD – Books on Demand

The present state of the art of dam engineering has been ronmental, and political factors, which, though important, attained by a continuous search for new ideas and methods are covered in other publications. while incorporating the lessons of the past. In the last 20 The rapid progress in recent times has resulted from the years particularly there have been major innovations, due combined efforts of engineers and associated scientists, as largely to a concerted effort to blend the best of theory and exemplified by the authorities who have contributed to this practice. Accompanying these achievements, there has been book. These individuals have brought extensive knowledge a significant trend toward free interchange among the pro to the task, drawn from experience throughout the world. fessional disciplines, including open discussion of prob With the convergence of such distinguished talent, the op lems and their solutions. The inseparable relationships of portunity for accomplishment was substantial. I gratefully hydrology, geology, and seismology to engineering have acknowledge the generous cooperation of these writers, and been increasingly recognized in this field, where progress am indebted also to other persons and organizations that is founded on interdisciplinary cooperation. have allowed reference to their publications; and I have This book presents advances in dam engineering that attempted to acknowledge this obligation in the sections have been achieved in recent years or are under way. At where the material is used. These courtesies are deeply ap tention is given to practical aspects of design, construction, preciated.

Finite Element Analysis Springer

Understand malware analysis and its practical implementation Key Features Explore the key concepts of malware analysis and memory forensics using real-world examples Learn the art of detecting, analyzing, and investigating malware threats Understand adversary tactics and techniques Book Description Malware analysis and memory forensics are powerful analysis and investigation techniques used in reverse engineering, digital forensics, and incident response. With adversaries becoming sophisticated and carrying out advanced malware attacks on critical infrastructures, data centers, and private and public organizations, detecting, responding to, and investigating such intrusions is critical to information security professionals. Malware analysis and memory forensics have become must-have skills to fight advanced malware, targeted attacks, and security breaches. This book teaches you the concepts, techniques, and tools to understand the behavior and characteristics of malware through malware analysis. It also teaches you techniques to investigate and hunt malware using memory forensics. This book introduces you to the basics of malware analysis, and then gradually progresses into the more advanced concepts of code analysis and memory forensics. It uses real-world malware samples, infected memory images, and visual diagrams to help you gain a better understanding of the subject and to equip you with the skills required to analyze, investigate, and respond to malware-related incidents. What you will learn Create a safe and isolated lab environment for malware analysis Extract the metadata associated with malware Determine malware's interaction with the system Perform code analysis using IDA Pro and x64dbg Reverse-engineer various malware functionalities Reverse engineer and decode common encoding/encryption algorithms Reverse-engineer malware code injection and hooking techniques Investigate and hunt malware using memory forensics Who this book is for This book is for incident responders, cyber-security investigators, system administrators, malware analyst, forensic practitioners, student, or curious security professionals interested in learning malware analysis and memory forensics. Knowledge of programming languages such as C and Python is helpful but is not mandatory. If you have written few lines of code and have a basic understanding of programming concepts, you'll be able to get most out of this book.

Computational Mechanics Springer

This book collects 5 keynote and 15 topic lectures presented at the 2nd European Conference on Earthquake Engineering and Seismology (2ECEES), held in Istanbul, Turkey, from August 24 to 29, 2014. The conference was organized by the Turkish Earthquake Foundation - Earthquake Engineering Committee and Prime Ministry, Disaster and Emergency Management Presidency under the auspices of the European Association for Earthquake Engineering (EAEE) and European Seismological Commission (ESC). The book ' s twenty state-of-the-art papers were written by the most prominent researchers in Europe and address a comprehensive collection of topics on earthquake engineering, as well as interdisciplinary subjects such as engineering seismology and seismic risk assessment and management. Further topics include engineering seismology, geotechnical earthquake engineering, seismic performance of buildings, earthquake-resistant engineering structures, new techniques and technologies and managing risk in seismic regions. The book also presents the Third Ambraseys Distinguished Award Lecture given by Prof. Robin Spence in honor of Prof. Nicholas N. Ambraseys. The aim of this work is to present the state-of-the art and latest practices in the fields of earthquake engineering and seismology, with Europe ' s most respected researchers addressing recent and ongoing developments while also proposing innovative avenues for future research and development. Given its cutting-edge content and broad spectrum of topics, the book offers a unique reference guide for researchers in these fields. Audience: This book is of interest to civil engineers in the fields of geotechnical and structural earthquake engineering; scientists and researchers in the fields of seismology, geology and geophysics. Not only scientists, engineers and students, but also those interested in earthquake hazard assessment and mitigation will find in this book the most recent advances.

Matrix Analysis of Structural Dynamics Academic Press

These proceedings contain lectures presented at the NATO-NSF-ARO sponsored Advanced Study I~stitute on "Computer Aided Analysis and Optimization of Mechanical System Dynamics" held in Iowa City, Iowa, 1-12 August, 1983. Lectures were presented by free world leaders in the field of machine dynamics and optimization. Participants in the Institute were specialists from throughout NATO, many of whom presented contributed papers during the Institute and all of whom participated actively in discussions on technical aspects of the subject. The proceedings are organized into five parts, each addressing a technical aspect of the field of computational methods in dynamic analysis and design of mechanical systems. The introductory paper presented first in the text outlines some of the numerous technical considerations that must be given to organizing effective and efficient computational methods and computer codes to serve engineers in dynamic analysis and design of mechanical systems. Two substantially different approaches to the field are identified in this introduction and are given attention throughout the text. The first and most classical approach uses a minimal set of Lagrangian generalized coordinates to formulate equations of motion with a small number of constraints. The second method uses a maximal set of cartesian coordinates and leads to a large number of differential and algebraic constraint equations of rather simple form. These fundamentally different approaches and associated methods of symbolic computation, numerical integration, and use of computer graphics are addressed throughout the proceedings.

Simulations for Design and Manufacturing Springer

DESCRIPTION The book provides a comprehensive exploration of Java security and penetration testing, starting with foundational topics such as secure coding practices and the OWASP Top 10 for web applications. The early chapters introduce penetration testing methodologies, including Java web application-specific mapping and reconnaissance techniques. The gathering of information through OSINT and advanced search techniques is highlighted, laying the crucial groundwork for testing. Proxy tools like Burp Suite and OWASP Zap are shown, offering insights into their configurations and capabilities for web application testing. Each chapter does a deep dive into specific vulnerabilities and attack vectors associated with Java web and mobile applications. Key topics include SQL injection, cross-site scripting (XSS), authentication flaws, and session management issues. Each chapter supplies background information, testing examples, and practical secure coding advice to prevent these vulnerabilities. There is a distinct focus on hands-on testing methodologies, which prepares readers for real-world security challenges. By the end of this book, you will be a confident Java security champion. You will understand how to exploit vulnerabilities to mimic real-world attacks, enabling you to proactively patch weaknesses before malicious actors can exploit them. KEY FEATURES ● Learn penetration testing basics for Java applications. ● Discover web vulnerabilities, testing techniques, and secure coding practices. ● Explore Java Android security, SAST, DAST, and vulnerability mitigation. WHAT YOU WILL LEARN ● Study the OWASP Top 10 and penetration testing methods. ● Gain secure coding and testing techniques for vulnerabilities like XSS and CORS. ● Find out about authentication, cookie management, and secure session practices. ● Master access control and authorization testing, including IDOR and privilege escalation. ● Discover Android app security and tools for SAST, DAST, and exploitation. WHO THIS BOOK IS FOR This book is for Java developers, software developers, application developers, quality engineers, software testing teams, and security analysts. Prior knowledge of Java is required. Some application security knowledge is helpful. TABLE OF CONTENTS 1. Introduction: Java Security, Secure Coding, and Penetration Testing 2. Reconnaissance and Mapping 3. Hands-on with Web Proxies 4. Observability with SQL Injections 5. Misconfiguration with Default Values 6. CORS Exploitation 7. Exploring Vectors with DoS Attacks 8. Executing Business Logic Vulnerabilities 9. Authentication Protocols 10. Session Management 11. AuthorizationPractices 12. Java Deserialization Vulnerabilities 13. Java Remote Method Invocation Vulnerabilities 14. Java Native Interface Vulnerabilities 15. Static Analysis of Java Android Applications 16. Dynamic Analysis of Java Android Applications 17. Network Analysis of Java Android Applications Appendix

Handbook of Research on Advancing Cybersecurity for Digital Transformation Elsevier

Analyze malicious samples, write reports, and use industry-standard methodologies to confidently triage and analyze adversarial software and malware Key FeaturesInvestigate, detect, and respond to various types of malware threatUnderstand how to use what you've learned as an analyst to produce actionable IOCs and reportingExplore complete solutions, detailed walkthroughs, and case studies of real-world malware samplesBook Description Malicious software poses a threat to every enterprise globally. Its growth is costing businesses millions of dollars due to currency theft as a result of ransomware and lost productivity. With this book, you'll learn how to quickly triage, identify, attribute, and remediate threats using proven analysis techniques. Malware Analysis Techniques begins with an overview of the nature of malware, the current threat landscape, and its impact on businesses. Once you've covered the basics of malware, you'll move on to discover more about the technical nature of malicious software, including static characteristics and dynamic attack methods within the MITRE ATT&CK framework. You'll also find out how to perform practical malware analysis by applying all that you've learned to attribute the malware to a specific threat and

weaponize the adversary's indicators of compromise (IOCs) and methodology against them to prevent them from attacking. Finally, you'll get to grips with common tooling utilized by professional malware analysts and understand the basics of reverse engineering with the NSA's Ghidra platform. By the end of this malware analysis book, you'll be able to perform in-depth static and dynamic analysis and automate key tasks for improved defense against attacks. What you will learnDiscover how to maintain a safe analysis environment for malware samplesGet to grips with static and dynamic analysis techniques for collecting IOCsReverse-engineer and debug malware to understand its purposeDevelop a well-polished workflow for malware analysisUnderstand when and where to implement automation to react quickly to threatsPerform malware analysis tasks such as code analysis and API inspectionWho this book is for This book is for incident response professionals, malware analysts, and researchers who want to sharpen their skillset or are looking for a reference for common static and dynamic analysis techniques. Beginners will also find this book useful to get started with learning about malware analysis. Basic knowledge of command-line interfaces, familiarity with Windows and Unix-like filesystems and registries, and experience in scripting languages such as PowerShell, Python, or Ruby will assist with understanding the concepts covered.

Breaking Ransomware CRC Press

Malware analysis is big business, and attacks can cost a company dearly. When malware breaches your defenses, you need to act quickly to cure current infections and prevent future ones from occurring. For those who want to stay ahead of the latest malware, Practical Malware Analysis will teach you the tools and techniques used by professional analysts. With this book as your guide, you'll be able to safely analyze, debug, and disassemble any malicious software that comes your way. You'll learn how to: – Set up a safe virtual environment to analyze malware – Quickly extract network signatures and host-based indicators – Use key analysis tools like IDA Pro, OllyDbg, and WinDbg – Overcome malware tricks like obfuscation, anti-disassembly, anti-debugging, and anti-virtual machine techniques – Use your newfound knowledge of Windows internals for malware analysis – Develop a methodology for unpacking malware and get practical experience with five of the most popular packers – Analyze special cases of malware with shellcode, C++, and 64-bit code Hands-on labs throughout the book challenge you to practice and synthesize your skills as you dissect real malware samples, and pages of detailed dissections offer an over-the-shoulder look at how the pros do it. You'll learn how to crack open malware to see how it really works, determine what damage it has done, thoroughly clean your network, and ensure that the malware never comes back. Malware analysis is a cat-and-mouse game with rules that are constantly changing, so make sure you have the fundamentals. Whether you're tasked with securing one network or a thousand networks, or you're making a living as a malware analyst, you'll find what you need to succeed in Practical Malware Analysis.

Advanced Dam Engineering for Design, Construction, and Rehabilitation Springer Nature

As deepwater wells are drilled to greater depths, pipeline engineers and designers are confronted with new problems such as water depth, weather conditions, ocean currents, equipment reliability, and well accessibility. Subsea Pipeline Design, Analysis and Installation is based on the authors' 30 years of experience in offshore. The authors provide rigorous coverage of the entire spectrum of subjects in the discipline, from pipe installation and routing selection and planning to design, construction, and installation of pipelines in some of the harshest underwater environments around the world. All-inclusive, this must-have handbook covers the latest breakthroughs in subjects such as corrosion prevention, pipeline inspection, and welding, while offering an easy-to-understand guide to new design codes currently followed in the United States, United Kingdom, Norway, and other countries. - Gain expert coverage of international design codes - Understand how to design pipelines and risers for today's deepwater oil and gas - Master critical equipment such as subsea control systems and pressure piping

Mastering Malware Analysis CRC Press

Finite element analysis is an engineering method for the numerical analysis of complex structures. This book provides a bird's eye view on this very broad matter through 27 original and innovative research studies exhibiting various investigation directions. Through its chapters the reader will have access to works related to Biomedical Engineering, Materials Engineering, Process Analysis and Civil Engineering. The text is addressed not only to researchers, but also to professional engineers, engineering lecturers and students seeking to gain a better understanding of where Finite Element Analysis stands today.

Pressure Vessel Design Manual Springer

This book presents up-to-date knowledge of dynamic analysis in engineering world. To facilitate the understanding of the topics by readers with various backgrounds, general principles are linked to their applications from different angles. Special interesting topics such as statistics of motions and loading, damping modeling and measurement, nonlinear dynamics, fatigue assessment, vibration and buckling under axial loading, structural health monitoring, human body vibrations, and vehicle-structure interactions etc., are also presented. The target readers include industry professionals in civil, marine and mechanical engineering, as well as researchers and students in this area.

Computer Techniques in Vibration Packt Publishing Ltd

This book constitutes the refereed proceedings of the 25th International Conference on Information and Software Technologies, ICIST 2019, held in Vilnius, Lithuania, in October 2019. The 46 papers presented were carefully reviewed and selected from 121 submissions. The papers are organized in topical sections on information systems; business intelligence for information and software systems; information technology applications; software engineering.

Numerical Analysis of Dams Packt Publishing Ltd

Master malware analysis to protect your systems from getting infected Key FeaturesSet up and model solutions, investigate malware, and prevent it from occurring in futureLearn core concepts of dynamic malware analysis, memory forensics, decryption, and much moreA practical guide to developing innovative solutions to numerous malware incidentsBook Description With the ever-growing proliferation of technology, the risk of encountering malicious code or malware has also increased. Malware analysis has become one of the most trending topics in businesses in recent years due to multiple prominent ransomware attacks. Mastering Malware Analysis explains the universal patterns behind different malicious software types and how to analyze them using a variety of approaches. You will learn how to examine malware code and determine the damage it can possibly cause to your systems to ensure that it won't propagate any further. Moving forward, you will cover all aspects of malware analysis for the Windows platform in detail. Next, you will get to grips with obfuscation and anti-disassembly, anti-debugging, as well as anti-virtual machine techniques. This book will help you deal with modern cross-platform malware. Throughout the course of this book, you will explore real-world examples of static and dynamic malware analysis, unpacking and decrypting, and rootkit detection. Finally, this book will help you strengthen your defenses and prevent malware breaches for IoT devices and mobile platforms. By the end of this book, you will have learned to effectively analyze, investigate, and build innovative solutions to handle any malware incidents. What you will learnExplore widely used assembly languages to strengthen your reverse-engineering skillsMaster different executable file formats, programming languages, and relevant APIs used by attackersPerform static and dynamic analysis for multiple platforms and file typesGet to grips with handling sophisticated malware casesUnderstand real advanced attacks, covering all stages from infiltration to hacking the systemLearn to bypass anti-reverse engineering techniquesWho this book is for If you are an IT security administrator, forensic analyst, or malware researcher looking to secure against malicious software or investigate malicious code, this book is for you. Prior programming experience and a fair understanding of malware attacks and investigation is expected.

Three Dimensional Analysis of Spinal Deformities BPB Publications

Crack a ransomware by identifying and exploiting weaknesses in its design KEY FEATURES ● Get an overview of the current security mechanisms available to prevent ransomware digital extortion. ● Explore different techniques to analyze a ransomware attack. ● Understand how cryptographic libraries are misused by malware authors to code ransomwares. DESCRIPTION Ransomware is a type of malware that is used by cybercriminals. So, to break that malware and find loopholes, you will first have to understand the details of ransomware. If you are looking to understand the internals of ransomware and how you can analyze and detect it, then this book is for you. This book starts with an overview of ransomware and its building blocks. The book will then help you understand the different types of cryptographic algorithms and how these encryption and decryption algorithms fit in the current ransomware architectures. Moving on, the book focuses on the ransomware architectural details and shows how malware authors handle key management. It also explores different techniques used for ransomware assessment. Lastly, the book will help you understand how to detect a loophole and crack ransomware encryption. By the end of this book, you will be able to identify and combat the hidden weaknesses in the internal components of ransomware. WHAT YOU WILL LEARN ● Get familiar with the structure of Portable Executable file format. ● Understand the crucial concepts related to Export Directory and Export Address Table. ● Explore different techniques used for ransomware static and dynamic analysis. ● Learn how to investigate a ransomware attack. ● Get expert tips to mitigate ransomware attacks. WHO THIS BOOK IS FOR This book is for cybersecurity professionals and malware analysts who are responsible for mitigating malware and ransomware attacks. This book is also for security professionals who want to learn how to prevent, detect, and respond to ransomware attacks. Basic knowledge of C/C++, x32dbg and Reverse engineering skills is a must. TABLE OF CONTENTS Section I: Ransomware Understanding 1. Warning Signs, Am I Infected? 2. Ransomware Building Blocks 3. Current Defense in Place 4. Ransomware Abuses Cryptography 5. Ransomware Key Management Section II: Ransomware Internals 6. Internal Secrets of Ransomware 7. Portable Executable Insides 8. Portable Executable Sections Section III: Ransomware Assessment 9. Performing Static Analysis 10. Perform Dynamic Analysis Section IV: Ransomware Forensics 11. What ' s in the Memory 12. LockCrypt 2.0 Ransomware Analysis 13. Jigsaw Ransomware Analysis Section V: Ransomware Rescue 14. Experts Tips to Manage Attacks

Penetration Testing with Java Packt Publishing Ltd

Dodge the common mistakes that even senior developers make, take full advantage of static analysis tools, and deliver robust and error-free Java code. Whenever you make a mistake writing Java, it ' s almost guaranteed that someone else has made it before! In 100 Java Mistakes and How To Avoid Them you ' ll learn about the common and the not-so-common antipatterns, errors, and tricky bits that trip up almost every Java developer. Inside 100 Java Mistakes and How To Avoid Them you will learn how to: Write better Java programs Recognize common mistakes during programming Create fewer bugs and save time for debugging and testing Get help from static analyzers during programming Configure static analysis tools to reduce the number of false reports Extend static analysis tools with custom plugins Each Java mistake in this handy guide comes with an illustrative code sample, an explanation of why the mistake occurs, and an actionable " ways to avoid this " section to help you dodge the error. Plus, you ' ll benefit from useful static analysis sidebars that let you know when mistakes will—and won ' t—be spotted by static analysis tools. Foreword by Cay Horstmann. About the technology Minor bugs in development can become major problems in production. It ' s much better to spot and fix your mistakes before they get that far! This one-of-a-kind book shines a light on the most common Java slip-ups and shows you exactly how to avoid making them in the first place. About the book 100 Java Mistakes and How To Avoid Them highlights 100 Java coding errors—from beginner missteps to mistakes even Java experts don ' t know they ' re making. Each case includes clear examples to show you what to look for and concrete troubleshooting advice. You ' ll learn to use static analysis tools like IntelliJ IDEA and SonarLint to ensure you ' re consistently delivering exceptional Java, discover how unit tests and defensive coding can keep your code clean, and even learn to write your own bug-busting plugins. What's inside Recognize bugs and antipatterns during programming Highly-effective debugging and testing Get help from static analyzers About the reader For Java developers of all skill levels. About the author Tagir Valeev is a technical lead in JetBrains and a Java Champion. He designed and developed many code inspections for IntelliJ IDEA built-in static analyzer. The technical editor on this book was Jean-Fran ç ois Morin. Table of Contents 1 Managing code quality 2 Expressions 3 Program structure 4 Numbers 5 Common exceptions 6 Strings 7 Comparing objects 8 Collections and maps 9 Library methods 10 Unit testing A Static analysis annotations B Extending static analysis tools

Essentials of Applied Dynamic Analysis Packt Publishing Ltd

This book comprises the best deliberations with the theme " Smart Innovations in Mezzanine Technologies, Data Analytics, Networks and Communication Systems " in the " International Conference on Advances in Computer Engineering and Communication Systems (ICACECS 2020) " , organized by the Department of Computer Science and Engineering, VNR Vignana Jyothi Institute of Engineering and Technology. The book provides insights on the recent trends and developments in the field of computer science with a special focus on the mezzanine technologies and creates an arena for collaborative innovation. The book focuses on advanced topics in artificial intelligence, machine learning, data mining and big data computing, cloud computing, Internet on things, distributed computing and smart systems.

Information and Software Technologies No Starch Press

Changes in Shape of the Spine with Idiopathic Scoliosis after Harrington or C-D Instrumentation: The Plan View -- 3-D Correction Obtained with the C-D Procedure During Surgery -- Results of Treatment of Scoliosis with the Cotrel-Dubousset Technique -- Technics and Preliminary Results Colorado -- A Preliminary Report on the Surgical Realignment of Adolescent Idiopathic Scoliosis with Isola Instrumentation -- Osteoporotic Fractures with Neurological Complications -- Simulation of Surgical Maneuvers with C-D Instrumentation -- Adolescence and Orthopaedic Braces: Psychological Conflicts? -- Preliminary Results of Specific Exercises During In-Patient Scoliosis Rehabilitation -- Cardiopulmonary Performance in Patients with Severe Scoliosis - Outcome after Specific Rehabilitation -- Scoliotic Flatback and Specific Rehabilitation -- Chapter 6. Surface Topography & Internal 3-D Spinal and/or Trunk Anatomy -- Scoliosis Follow-Up by Back Shape Analysis -- Evaluation of Its Reliability -- Digital 3D Moir é - Topography -- Evolution of Scoliosis by Optical Scanner I.S.I.S. -- Automated 360 ° Degree Profilometry of Human Trunk for Spinal Deformity Analysis -- Spinal Surface Digitization Using 'Metrecom' in Scoliosis Screening -- High-Resolution Rasterstereography -- Reproducibility and Reliability of the Quantec Surface Imaging System in the Assessment of Spinal Deformity -- Investigation of the Diurnal Variation in the Water Content of the Intervertebral Disc Using MRI and Its Implications for Scoliosis -- Author Index

Dynamic Analysis of Space Tether Missions IOS Press

The study of social dynamics using quantitative methodology is complex and calls for technical and methodological approaches in social science research. This book provides step-by-step instructions for designing and conducting longitudinal research, with focus on the longitudinal analysis of both quantitative outcomes and qualitative outcomes.

Practical Malware Analysis Gulf Professional Publishing

Explore open-source Linux tools and advanced binary analysis techniques to analyze malware, identify vulnerabilities in code, and mitigate information security risks Key FeaturesAdopt a methodological approach to binary ELF analysis on LinuxLearn how to disassemble binaries and understand disassembled codeDiscover how and when to patch a malicious binary during analysisBook Description Binary analysis is the process of examining a binary program to determine information security actions. It is a complex, constantly evolving, and challenging topic that crosses over into several domains of information technology and security. This binary analysis book is designed to help you get started with the basics, before gradually advancing to challenging topics. Using a recipe-based approach, this book guides you through building a lab of virtual machines and installing tools to analyze binaries effectively. You'll begin by learning about the IA32 and ELF32 as well as IA64 and ELF64 specifications. The book will then guide you in developing a methodology and exploring a variety of tools for Linux binary analysis. As you advance, you'll learn how to analyze malicious 32-bit and 64-bit binaries and identify vulnerabilities. You'll even examine obfuscation and anti-analysis techniques, analyze polymorphed malicious binaries, and get a high-level overview of dynamic taint analysis and binary instrumentation concepts. By the end of the book, you'll have gained comprehensive insights into binary analysis concepts and have developed the foundational skills to confidently delve into the realm of binary analysis. What you will learnTraverse the IA32, IA64, and ELF specificationsExplore Linux tools to disassemble ELF binariesIdentify vulnerabilities in 32-bit and 64-bit binariesDiscover actionable solutions to overcome the limitations in analyzing ELF binariesInterpret the output

of Linux tools to identify security risks in binariesUnderstand how dynamic taint analysis worksWho this book is for This book is for anyone looking to learn how to dissect ELF binaries using open-source tools available in Linux. If you ' re a Linux system administrator or information security professional, you ' ll find this guide useful. Basic knowledge of Linux, familiarity with virtualization technologies and the working of network sockets, and experience in basic Python or Bash scripting will assist you with understanding the concepts in this book

Subsea Pipeline Design, Analysis, and Installation Elsevier

Process Modelling and Model Analysis describes the use of models in process engineering. Process engineering is all about manufacturing--of just about anything! To manage processing and manufacturing systematically, the engineer has to bring together many different techniques and analyses of the interaction between various aspects of the process. For example, process engineers would apply models to perform feasibility analyses of novel process designs, assess environmental impact, and detect potential hazards or accidents. To manage complex systems and enable process design, the behavior of systems is reduced to simple mathematical forms. This book provides a systematic approach to the mathematical development of process models and explains how to analyze those models. Additionally, there is a comprehensive bibliography for further reading, a question and answer section, and an accompanying Web site developed by the authors with additional data and exercises. - Introduces a structured modeling methodology emphasizing the importance of the modeling goal and including key steps such as model verification, calibration, and validation - Focuses on novel and advanced modeling techniques such as discrete, hybrid, hierarchical, and empirical modeling - Illustrates the notions, tools, and techniques of process modeling with examples and advances applications