

Iso lec 25010 Iso 25000

The five-volume set LNCS 3980-3984 constitutes the refereed proceedings of the International Conference on Computational Science and Its Applications, ICCSA 2006. The volumes present a total of 664 papers organized according to the five major conference themes: computational methods, algorithms and applications high performance technical computing and networks advanced and emerging applications geometric modelling, graphics and visualization information systems and information technologies. This is Part IV.

This volume constitutes the refereed proceedings of the 24th EuroSPI conference, held in Ostrava, Czech Republic, in September 2017. The 56 revised full papers presented were carefully reviewed and selected from 97 submissions. They are organized in topical sections on SPI and VSEs, SPI and process models, SPI and safety, SPI and project management, SPI and implementation, SPI issues, SPI and automotive, selected key notes and workshop papers, GamifySPI, SPI in Industry 4.0, best practices in implementing traceability, good and bad practices in improvement, safety and security, experiences with agile and lean, standards and assessment models, team skills and diversity strategies. This book constitutes extended, revised and selected papers from the 21st International Conference on Enterprise Information Systems, ICEIS 2019, held in Heraklion, Crete, Greece, in May 2019. The 26 papers presented in this volume were carefully reviewed and selected for inclusion in this book from a total of 205 submissions. They deal with topics such as data science and databases; ontologies; social networks; knowledge management; software development; human-computer interaction, and multimedia.

This book provides a comprehensive overview of the field of software processes, covering in particular the following essential topics: software process modelling, software process and lifecycle models, software process management, deployment and governance, and software process improvement (including assessment and measurement). It does not propose any new processes or methods; rather, it introduces students and software engineers to software processes and life cycle models, covering the different types ranging from "classical", plan-driven via hybrid to agile approaches. The book is structured as follows: In chapter 1, the fundamentals of the topic are introduced: the basic concepts, a historical overview, and the terminology used. Next, chapter 2 covers the various approaches to modelling software processes and lifecycle models, before chapter 3 discusses the contents of these models, addressing plan-driven, agile and hybrid approaches. The following three chapters address various aspects of using software processes and lifecycle models within organisations, and consider the management of these processes, their assessment and improvement, and the measurement of both software and software processes. Working with software processes normally involves various tools, which are the focus of chapter 7, before a look at current trends in software processes in chapter 8 rounds out the book. This book is mainly intended for graduate students and practicing professionals. It can be used as a textbook for courses and lectures, for self-study, and as a reference guide. When used as a textbook, it may support courses and lectures on software processes, or be used as complementary literature for more basic courses, such as introductory courses on software engineering or project management. To this end, it includes a wealth of examples and case studies, and each chapter is complemented by exercises that help readers gain a better command of the concepts discussed.

This book covers ideas, methods, algorithms, and tools for the in-depth study of the performance and reliability of dependable fault-tolerant systems. The chapters identify the current challenges that designers and practitioners must confront to ensure the reliability, availability, and performance of systems, with special focus on their dynamic behaviors and dependencies. Topics include network calculus, workload and scheduling; simulation, sensitivity analysis and applications; queuing networks analysis; clouds, federations and big data; and tools. This collection of recent research exposes system researchers, performance analysts, and practitioners to a spectrum of issues so that they can address these challenges in their work.

As requirements engineering continues to be recognized as the key to on-time and on-budget delivery of software and systems projects, many engineering programs have made requirements engineering mandatory in their curriculum. In addition, the wealth of new software tools that have recently emerged is empowering practicing engineers to improve their requirements engineering habits. However, these tools are not easy to use without appropriate training. Filling this need, Requirements Engineering for Software and Systems, Second Edition has been vastly updated and expanded to include about 30 percent new material. In addition to new exercises and updated references in every chapter, this edition updates all chapters with the latest applied research and industry practices. It also presents new material derived from the experiences of professors who have used the text in their classrooms. Improvements to this edition include: An expanded introductory chapter with extensive discussions on requirements analysis, agreement, and consolidation An expanded chapter on requirements engineering for Agile methodologies An expanded chapter on formal methods with new examples An expanded section on requirements traceability An updated and expanded section on requirements engineering tools New exercises including ones suitable for research projects Following in the footsteps of its bestselling predecessor, the text illustrates key ideas associated with requirements engineering using extensive case studies and three common example systems: an airline baggage handling system, a point-of-sale system for a large pet store chain, and a system for a smart home. This edition also includes an example of a wet well pumping system for a wastewater treatment station. With a focus on software-intensive systems, but highly applicable to non-software systems, this text provides a probing and comprehensive review of recent developments in requirements engineering in high integrity systems.

Professionals in the interdisciplinary field of computer science focus on the design, operation, and maintenance of computational systems and software. Methodologies and tools of engineering are utilized alongside computer applications to develop efficient and precise information databases. Computer Systems and Software Engineering: Concepts, Methodologies, Tools, and Applications is a comprehensive reference source for the latest scholarly material on trends, techniques, and uses of various technology applications and examines the benefits and challenges of these computational developments. Highlighting a range of pertinent topics such as utility computing, computer security, and information systems applications, this multi-volume book is ideally designed for academicians, researchers, students, web designers, software developers, and practitioners interested in computer systems and software engineering.

This book constitutes the refereed proceedings of the 12th International Conference on the Quality of Information and Communications Technology, QUATIC 2019, held in Ciudad Real, Spain, in September 2019. The 19 full papers and 6 short papers were carefully reviewed and selected from 66 submissions. The papers are organized in topical sections: security & privacy, requirements engineering, business processes, evidence-based software engineering, process improvement and assessment, model-driven engineering & software maintenance, data science & services, and verification and validation.

Ongoing advancements in modern technology have led to significant developments in intelligent systems. With the numerous applications available, it becomes imperative to conduct research and make further progress in this field. Intelligent Systems: Concepts, Methodologies, Tools, and Applications contains a compendium of the latest academic material on the latest breakthroughs and recent progress in intelligent systems. Including innovative studies on information retrieval, artificial intelligence, and software engineering, this multi-volume book is an ideal source for researchers, professionals, academics, upper-level students, and practitioners interested in emerging perspectives in the field of intelligent systems.

Software quality stems from two distinctive, but associated, topics in software engineering: software functional quality and software structural quality. Software Quality Engineering studies the tenets of both of these notions, which focus on the

efficiency and value of a design, respectively. The text addresses engineering quality on both the application and system levels with attention to Information Systems and Embedded Systems as well as recent developments. Targeted at graduate engineering students and software quality specialists, the book analyzes the relationship between functionality and quality with practical applications to related ISO/IEC JTC1 SC7 standards.

This book constitutes the refereed proceedings of the 14th International Conference on Evaluation of Novel Approaches to Software Engineering, ENASE 2019, held in Heraklion, Crete, Greece, in May 2019. The 19 revised full papers presented were carefully reviewed and selected from 102 submissions. The papers included in this book contribute to the understanding of relevant trends of current research on novel approaches to software engineering for the development and maintenance of systems and applications, specifically with relation to: model-driven software engineering, requirements engineering, empirical software engineering, service-oriented software engineering, business process management and engineering, knowledge management and engineering, reverse software engineering, software process improvement, software change and configuration management, software metrics, software patterns and refactoring, application integration, software architecture, cloud computing, and formal methods.

This book contains the refereed proceedings of the 15th International Conference on Agile Software Development, XP 2014, held in Rome, Italy, in May 2014. Because of the wide application of agile approaches in industry, the need for collaboration between academics and practitioners has increased in order to develop the body of knowledge available to support managers, system engineers, and software engineers in their managerial/economic and architectural/project/technical decisions. Year after year, the XP conference has facilitated such improvements and provided evidence on the advantages of agile methodologies by examining the latest theories, practical applications, and implications of agile and lean methods. The 15 full papers, seven short papers, and four experience reports accepted for XP 2014 were selected from 59 submissions and are organized in sections on: agile development, agile challenges and contracting, lessons learned and agile maturity, how to evolve software engineering teaching, methods and metrics, and lean development.

This book constitutes the refereed proceedings of the 20th International Conference on Business Information Systems, BIS 2017, held in Poznań, Poland, in June 2017. Big Data Analytics helps to understand and enhance enterprises by linking many fields of information technology and business. This year's conference theme was: Big Data Analytics for Business and Public Administration. The 24 full papers presented in this volume were carefully reviewed and selected from 72 submissions. They were organized in topical sections named: big and smart data; business and enterprise modeling; ICT project management; process management; smart infrastructure; and applications.

Innovate at scale through well-architected API-led products that drive personalized, predictive, and adaptive customer experiences
Key Features
Strategize your IT investments by modeling enterprise solutions with an API-centric approach
Build robust and reliable API platforms to boost business agility and omnichannel delivery
Create digital value chains through the productization of your APIs
Book Description
API-centric architectures are foundational to delivering omnichannel experiences for an enterprise. With this book, developers will learn techniques to design loosely coupled, cloud-based, business-tier interfaces that can be consumed by a variety of client applications. Using real-world examples and case studies, the book helps you get to grips with the cloud-based design and implementation of reliable and resilient API-centric solutions. Starting with the evolution of enterprise applications, you'll learn how API-based integration architectures drive digital transformation. You'll then learn about the important principles and practices that apply to cloud-based API architectures and advance to exploring the different architecture styles and their implementation in Azure. This book is written from a practitioner's point of view, so you'll discover ideas and practices that have worked successfully in various customer scenarios. By the end of this book, you'll be able to architect, design, deploy, and monetize your API solutions in the Azure cloud while implementing best practices and industry standards. What you will learn
Explore the benefits of API-led architecture in an enterprise
Build highly reliable and resilient, cloud-based, API-centric solutions
Plan technical initiatives based on Well-Architected Framework principles
Get to grips with the productization and management of your API assets for value creation
Design high-scale enterprise integration platforms on the Azure cloud
Study the important principles and practices that apply to cloud-based API architectures
Who this book is for
This book is for solution architects, developers, engineers, DevOps professionals, and IT decision-makers who are responsible for designing and developing large distributed systems. Familiarity with enterprise solution architectures and cloud-based design will help you to comprehend the concepts covered in the book easily.

This book constitutes the thoroughly refereed post-conference proceedings of the workshops held at the 11th International Conference on Web Engineering, ICWE 2011, in Paphos, Cyprus, in June 2011. The 42 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers are organized in sections on the Third International Workshop on Lightweight Composition on the Web (ComposableWeb 2011); First International Workshop on Search, Exploration and Navigation of Web Data Sources (ExploreWeb 2011); Second International Workshop on Enterprise Crowdsourcing (EC 2011); Seventh Model-Driven Web Engineering Workshop (MDWE 2011); Second International Workshop on Quality in Web Engineering (QWE 2011); Second Workshop on the Web and Requirements Engineering (WeRE 2011); as well as the Doctoral Symposium 2011, and the ICWE 2011 Tutorials.

This book constitutes the proceedings of the 17th International Conference on Product-Focused Software Process Improvement, PROFES 2016, held in Trondheim, Norway, in November 2016. The 24 revised full papers presented together with 21 short papers, 1 keynote, 3 invited papers, 5 workshop papers, 2 doctoral symposium papers, and 6 tutorials were carefully reviewed and selected from 82 submissions. The papers are organized in topical sections on Early Phases in Software Engineering; Organizational Models; Architecture; Methods and Tools; Verification and Validation; Process Improvement; Speed and Agility in System Engineering; Requirements and Quality; Process and

Repository Mining; Business Value and Benefits; Emerging Research Topics; and Future of Computing.

Esta enciclopedia presenta numerosas experiencias y discernimientos de profesionales de todo el mundo sobre discusiones y perspectivas de la interacción hombre-computadoras

These days, more and more software development projects are being carried out using agile methods like Scrum. Agile software development promises higher software quality, a shorter time to market, and improved focus on customer needs. However, the transition to working within an agile methodology is not easy. Familiar processes and procedures change drastically. Software testing and software quality assurance have a crucial role in ensuring that a software development team, department, or company successfully implements long-term agile development methods and benefits from this framework. This book discusses agile methodology from the perspective of software testing and software quality assurance management. Software development managers, project managers, and quality assurance managers will obtain tips and tricks on how to organize testing and assure quality so that agile projects maintain their impact. Professional certified testers and software quality assurance experts will learn how to work successfully within agile software teams and how best to integrate their expertise. Topics include: Agile methodology and classic process models How to plan an agile project Unit tests and test first approach Integration testing and continuous integration System testing and test nonstop Quality management and quality assurance Also included are five case studies from the manufacturing, online-trade, and software industry as well as test exercises for self-assessment. This book covers the new ISTQB Syllabus for Agile Software Testing and is a relevant resource for all students and trainees worldwide who plan to undertake this ISTQB certification.

This book, *Innovative Trends in Personalized Software Engineering and Information Systems – The Case of Intelligent and Adaptive E-learning Systems*, studies the development of personalized and knowledge-based systems with the purpose of developing fully-automated adaptive software, mainly focusing on enhancing digital learning. The authors cover several integral phases of software engineering and their application in the effective implementation of sophisticated learning technology systems. Systems development and systems evaluation, tailored to adaptive e-learning, are examined in depth. More specifically, intelligent and knowledge-based techniques, such as artificial neural networks, fuzzy logic, genetic algorithms, pattern recognition, learning analytics and data mining, as well as evaluation frameworks adapted to digital learning software are presented. This publication will be of interest to scientists from various disciplines, including computer science, artificial intelligence, education and psychology, and will help researchers working in computer science and engineering to build intelligent and adaptive learning technology systems by employing personalization techniques while following the basic concepts of software engineering and information systems. It will also serve as a valuable tool for junior and senior scientists, supporting their research activities in the field of personalized and knowledge-based software engineering, and instructors will be able to use the book as a guide to the effective design and development of intelligent systems in education.

This volume constitutes the refereed proceedings of the 26th European Conference on Systems, Software and Services Process Improvement, EuroSPI conference, held in Edinburgh, Scotland, in September 2019. The 18 revised full papers presented were carefully reviewed and selected from 28 submissions. They are organized in topical sections: Visionary Papers, SPI and Safety and Security, SPI and Assessments, SPI and Future Qualification & Team Performance, and SPI Manifesto and Culture. The selected workshop papers are also presented and organized in following topical sections: GamifySPI, Digitalisation of Industry, Infrastructure and E-Mobility. -Best Practices in Implementing Traceability. -Good and Bad Practices in Improvement. -Functional Safety and Cybersecurity. -Experiences with Agile and Lean. -Standards and Assessment Models. -Team Skills and Diversity Strategies. -Recent Innovations.

This book presents a systematic model-based approach for software architecture according to three complementary viewpoints: structure, behavior, and execution. It covers a unified modeling approach and consolidates theory and practice with well-established learning outcomes. The authors cover the fundamentals of software architecture description and presents SysADL, a specialization of the OMG Standard Systems Modeling Language (SysML) with the aim of bringing together the expressive power of an Architecture Description Language (ADL) with a standard notation, widely accepted by industry and compliant with the ISO/IEC/IEEE 42010 Standard on Architecture Description in Systems and Software Engineering. The book is clearly structured in four parts: The first part focuses on the fundamentals of software architecture, exploring the concepts and constructs for modeling software architecture from differing viewpoints. Each chapter covers a specific viewpoint illustrated with examples of a real system. The second part focuses on how to design software architecture for achieving quality attributes. Each chapter covers a specific quality attribute and presents well-defined approaches to achieve it. Each architectural case study is illustrated with different examples drawn from a real-life system. The third part shows readers how to apply software architecture style to design architectures that meet the quality attributes. Each chapter covers a specific architectural style and gives insights on how to describe substyles. Each style is illustrated by variants and examples of a real-life system. The fourth part presents how to textually represent software architecture models to complement visual notation, including different examples. *Software Architecture in Action* is designed for teaching the required modeling techniques to both undergraduate and graduate students, giving them the practical techniques and tools needed to design the architecture of software-intensive systems. Similarly, this book will appeal to software development architects, designers, programmers and project managers too.

The three-volume set LNCS 8016, 8017, and 8018 constitutes the refereed proceedings of the 15th International Conference on Human-Computer Interaction, HCII 2013, held in Las Vegas, NV, USA in July 2013. The total of 1666 papers and 303 posters presented at the HCII 2013 conferences was carefully reviewed and selected from 5210 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human-computer Interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. This volume contains papers in the thematic area of human interface and the management of Information, addressing the following major topics: interacting with information, information searching, browsing and structuring, design and development methods and tools for interactive systems and services, personalized information and interaction, cognitive and emotional aspects of interacting with information.

This first volume of the three-volume set (CCIS 1193, CCIS 1194, and CCIS 1195) constitutes the refereed proceedings of the First International Conference on Applied Technologies, ICAT 2019, held in Quito, Ecuador, in December 2019. The 124 full papers were carefully reviewed and selected from 328 submissions. The papers are organized according to the following topics:

technology trends; computing; intelligent systems; machine vision; security; communication; electronics; e-learning; e-government; e-participation.

This book constitutes the proceedings of the 1st International Conference on Advances in Emerging Trends and Technologies (ICAETT 2019), held in Quito, Ecuador, on 29–31 May 2019, jointly organized by Universidad Tecnológica Israel, Universidad Técnica del Norte, and Instituto Tecnológico Superior Rumiñahui, and supported by SNOTRA. ICAETT 2019 brought together top researchers and practitioners working in different domains of computer science to share their expertise and to discuss future developments and potential collaborations. Presenting high-quality, peer-reviewed papers, the book discusses the following topics: Technology Trends Electronics Intelligent Systems Machine Vision Communication Security e-Learning e-Business e-Government and e-Participation

This is the first book that presents a comprehensive overview of sustainability aspects in software engineering. Its format follows the structure of the SWEBOK and covers the key areas involved in the incorporation of green aspects in software engineering, encompassing topics from requirement elicitation to quality assurance and maintenance, while also considering professional practices and economic aspects. The book consists of thirteen chapters, which are structured in five parts. First the “Introduction” gives an overview of the primary general concepts related to Green IT, discussing what Green in Software Engineering is and how it differs from Green by Software Engineering. Next “Environments, Processes and Construction” presents green software development environments, green software engineering processes and green software construction in general. The third part, “Economic and Other Qualities,” details models for measuring how well software supports green software engineering techniques and for performing trade-off analyses between alternative green practices from an economic perspective. “Software Development Process” then details techniques for incorporating green aspects at various stages of software development, including requirements engineering, design, testing, and maintenance. In closing, “Practical Issues” addresses the repercussions of green software engineering on decision-making, stakeholder participation and innovation management. The audience for this book includes software engineering researchers in academia and industry seeking to understand the challenges and impact of green aspects in software engineering, as well as practitioners interested in learning about the state of the art in Green in Software Engineering.

This book constitutes the refereed proceedings of the 11th Software Quality Days Conference, SWQD 2019, held in Vienna, Austria, in January 2019. The Software Quality Days (SWQD) conference started in 2009 and has grown to the biggest conference on software quality in Europe with a strong community. The program of the SWQD conference is designed to encompass a stimulating mixture of practical presentations and new research topics in scientific presentations. The guiding conference topic of the SWQD 2019 is “The Complexity and Challenges of Software Engineering and Software Quality in the Cloud”. The 5 full papers and 3 short papers presented in this volume were carefully reviewed and selected from 17 submissions. The volume also contains 2 invited talks. The contributions were organized in topical sections named: multi-disciplinary systems and software engineering; software quality and process improvement; software testing; knowledge engineering and machine learning; source code analysis; and software maintenance.

This book constitutes the refereed proceedings of the 15th International Conference on Software Architecture, ECSA 2021, held in Sweden, in September 2021. Due to the COVID-19 pandemic, the conference was held virtually. For the Research Track, 11 full papers, presented together with 5 short papers, were carefully reviewed and selected from 58 submissions. The papers are organized in topical sections as follows: architectures for reconfigurable and self-adaptive systems; machine learning for software architecture; architectural knowledge, decisions, and rationale; architecting for quality attributes; architecture-centric source code analysis; and experiences and learnings from industrial case studies.

This volume constitutes the refereed proceedings of the 25th European Conference on Systems, Software and Services Process Improvement, EuroSPI conference, held in Bilbao, Spain, in September 2018. The 56 revised full papers presented were carefully reviewed and selected from 95 submissions. They are organized in topical sections on SPI context and agility, SPI and safety testing, SPI and management issues, SPI and assessment, SPI and safety critical, gamifySPI, SPI in industry 4.0, best practices in implementing traceability, good and bad practices in improvement, safety and security, experiences with agile and lean, standards and assessment models, team skills and diversity strategies, SPI in medical device industry, empowering the future infrastructure. Second, we wanted to attract new audiences to the conference, selecting also novel workshops that cover topics of an emerging or foundational nature that extend the focus of ICWE beyond its traditional topics. We reached this goal by betting on subjects such as the Semantic Web, semantic data management, the Internet of things, Web-enabled tourism, service-based compliance management, and e-crowdsourcing.

This book constitutes the refereed proceedings of the 21st IFIP WG 5.5 Working Conference on Virtual Enterprises, PRO-VE 2020, held in Valencia, Spain, in November 2020. The conference was held virtually. The 53 full papers were carefully reviewed and selected from 135 submissions. They provide a comprehensive overview of major challenges and recent advances in various domains related to the digital transformation and collaborative networks and their applications with a strong focus on the following areas related to the main theme of the conference: collaborative business ecosystems; collaborative business models; collaboration platform; data and knowledge services; blockchain and knowledge graphs; maintenance, compliance and liability; digital transformation; skills for organizations of the future; collaboration in open innovation; collaboration in supply chain; simulation and analysis in collaborative systems; product and service systems; collaboration impacts; boosting sustainability through collaboration in Agri-food 4.0; digital innovation hubs for digitalizing European industry; and collaborative networks for health and wellness data management.

The contemporary world lives on the data produced at an unprecedented speed through social networks and the internet of things (IoT). Data has been called the new global currency, and its rise is transforming entire industries, providing a wealth of opportunities. Applied data science research is necessary to derive useful information from big data for the effective and efficient utilization to solve real-world problems. A broad analytical set allied with strong business logic is fundamental in today's corporations. Organizations work to obtain competitive advantage by analyzing the data produced within and outside their organizational limits to support their decision-making processes. This book aims to provide an overview of the concepts, tools, and techniques behind the fields of data science and artificial intelligence (AI) applied to business and industries. The Handbook of Research on Applied Data Science and Artificial Intelligence in Business and Industry discusses all stages of data science to AI and their application to real problems across industries—from science and engineering to academia and commerce. This book

brings together practice and science to build successful data solutions, showing how to uncover hidden patterns and leverage them to improve all aspects of business performance by making sense of data from both web and offline environments. Covering topics including applied AI, consumer behavior analytics, and machine learning, this text is essential for data scientists, IT specialists, managers, executives, software and computer engineers, researchers, practitioners, academicians, and students. This book constitutes a collection of selected contributions from the 12th International Conference on Perspectives in Business Informatics Research, BIR 2013, held in Warsaw, Poland, in September 2013. Overall, 54 submissions were rigorously reviewed by 41 members of the Program Committee representing 21 countries. As a result, 19 full and 5 short papers from 12 countries have been selected for publication in this volume. This book also includes the two keynotes by Witold Abramowicz and Bernhard Thalheim. The papers cover many aspects of business information research and have been organized in topical sections on: business process management; enterprise and knowledge architectures; organizations and information systems development; information systems and services; and applications.

The three-volume set LNCS 12181, 12182, and 12183 constitutes the refereed proceedings of the Human Computer Interaction thematic area of the 22nd International Conference on Human-Computer Interaction, HCII 2020, which took place in Copenhagen, Denmark, in July 2020.* A total of 1439 papers and 238 posters have been accepted for publication in the HCII 2020 proceedings from a total of 6326 submissions. The 145 papers included in this HCI 2020 proceedings were organized in topical sections as follows: Part I: design theory, methods and practice in HCI; understanding users; usability, user experience and quality; and images, visualization and aesthetics in HCI. Part II: gesture-based interaction; speech, voice, conversation and emotions; multimodal interaction; and human robot interaction. Part III: HCI for well-being and Eudaimonia; learning, culture and creativity; human values, ethics, transparency and trust; and HCI in complex environments. *The conference was held virtually due to the COVID-19 pandemic.

This book constitutes the refereed proceedings of the 45th International Conference on Current Trends in Theory and Practice of Computer Science, SOFSEM 2019, held in Nový Smokovec, Slovakia, in January 2019. The 34 full papers presented together with 6 invited talks were carefully reviewed and selected from 92 submissions. They presented new research results in the theory and practice of computer science in the each sub-area of SOFSEM 2019: Foundations of theoretical Computer Science, foundations of data science and engineering, and foundations of software engineering. Design quality SAS software and evaluate SAS software quality SAS Data Analytic Development is the developer's compendium for writing better-performing software and the manager's guide to building comprehensive software performance requirements. The text introduces and parallels the International Organization for Standardization (ISO) software product quality model, demonstrating 15 performance requirements that represent dimensions of software quality, including: reliability, recoverability, robustness, execution efficiency (i.e., speed), efficiency, scalability, portability, security, automation, maintainability, modularity, readability, testability, stability, and reusability. The text is intended to be read cover-to-cover or used as a reference tool to instruct, inspire, deliver, and evaluate software quality. A common fault in many software development environments is a focus on functional requirements—the what and how—to the detriment of performance requirements, which specify instead how well software should function (assessed through software execution) or how easily software should be maintained (assessed through code inspection). Without the definition and communication of performance requirements, developers risk either building software that lacks intended quality or wasting time delivering software that exceeds performance objectives—thus, either underperforming or gold-plating, both of which are undesirable. Managers, customers, and other decision makers should also understand the dimensions of software quality both to define performance requirements at project outset as well as to evaluate whether those objectives were met at software completion. As data analytic software, SAS transforms data into information and ultimately knowledge and data-driven decisions. Not surprisingly, data quality is a central focus and theme of SAS literature; however, code quality is far less commonly described and too often references only the speed or efficiency with which software should execute, omitting other critical dimensions of software quality. SAS® software project definitions and technical requirements often fall victim to this paradox, in which rigorous quality requirements exist for data and data products yet not for the software that undergirds them. By demonstrating the cost and benefits of software quality inclusion and the risk of software quality exclusion, stakeholders learn to value, prioritize, implement, and evaluate dimensions of software quality within risk management and project management frameworks of the software development life cycle (SDLC). Thus, SAS Data Analytic Development recalibrates business value, placing code quality on par with data quality, and performance requirements on par with functional requirements.

This multidisciplinary volume offers a systematic analysis of translation and interpreting as a means of guaranteeing equality under the law as well as global perspectives in legal translation and interpreting contexts. It offers insights into new research on • language policies and linguistic rights in multilingual communities • the role of the interpreter • accreditation of legal translators and interpreters • translator and interpreter education in multiple countries and • approaches to terms and tools for legal settings. The authors explore familiar problems with a view to developing new approaches to language justice by learning from researchers, trainers, practitioners and policy makers. By offering multiple methods and perspectives covering diverse contexts (e.g. in Austria, Belgium, England, Estonia, Finland, France, Germany, Hong Kong, Ireland, Norway, Poland), this volume is a welcome contribution to legal translation and interpreting studies scholars and practitioners alike, highlighting settings that have received limited attention, such as the linguistic rights of vulnerable populations, as well as practical solutions to methodological and terminological problems. This book constitutes the refereed proceedings of the First International Conference on Advanced Research in Technologies, Information, Innovation and Sustainability, ARTIIS 2021, held in La Libertad, Ecuador, in November 2021. The 53 full papers and 2 short contributions were carefully reviewed and selected from 155 submissions. The volume

covers a variety of topics, such as computer systems organization, software engineering, information storage and retrieval, computing methodologies, artificial intelligence, and others. The papers are logically organized in the following thematic blocks: ?Computing Solutions; Data Intelligence; Ethics, Security, and Privacy; Sustainability.

[Copyright: e251aafed423c0cbb591c1ce7ccad251](#)