

Application Lifecycle Management White Papers

This book constitutes the refereed proceedings of the 10th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2013, held in Nantes, France, in July 2013. The 63 full papers presented together with 2 keynote talks were carefully reviewed and selected from 91 submissions. They are organized in the following topical sections: PLM for sustainability, traceability and performance; PLM infrastructure and implementation processes; capture and reuse of product and process information; PLM and knowledge management; enterprise system integration; PLM and influence of/from social networks; PLM maturity and improvement concepts; PLM and collaborative product development; PLM virtual and simulation environments; and building information modeling.

The Commercial Delivery Methodology, or CDM, is offered as an effective means for vendor organizations to formalize their professional services business. It documents the CDM as an instance of a business lifecycle appropriate for the larger services firm with the need to bid and manage a relatively high percentage of large, fixed price, and potentially higher risk projects. The chapters describe each phase of the business lifecycle in the management of project opportunities and contracts. The CDM is a much-needed tool of business management, incorporating many project management practices, and operates alongside the project, or application, lifecycle familiar to project managers and their team. Large format (8½ x11), 39 templates, 5 deployment charts, 5 process diagrams, 17 IPO diagrams, Glossary. Book 2.0 is the second collection of public methodology white papers from the ISA-95/MESA Best Practices Working Group. The methodology white papers focus on applying the ISA-95 standards to accelerate the adoption of Manufacturing Operations Management (MOM) systems and the Manufacturing 2.0 Architecture (Mfg 2.0) approach. There is a focus on how to build a Manufacturing Transformation Strategy where manufacturers discover that using MOM systems combined with continuous improvement methods dramatically accelerate transformation and time-to-benefit. The business benefits from optimizing operations are realized by structuring plant workflows in ISA-95 models as a common definition foundation for Mfg 2.0 architecture. This enforces effective data structure, definition, integrity and governance across manufacturing applications. Book 2.0 explains how to implement ISA-95 workflow applications in Mfg 2.0 to execute operations tasks through the MOM and physical process levels while coordinating them to streamline plant operations and align those operations with ever-changing supply chain processes.

Discover how to turn requirements into working software increments—faster and more efficiently—using Visual Studio 2012 in combination with Scrum and Agile engineering practices. Designed for software development teams, this guide delivers pragmatic, role-based guidance for exploiting the capabilities of Application Lifecycle Management (ALM) tools in Visual Studio and Team Foundation Server. Team members will learn proven practices and techniques for implementing Scrum to manage an application's life cycle, as well as seamlessly plan, manage, and track their Scrum projects. The two volumes IFIP AICT 414 and 415 constitute the refereed proceedings of the International IFIP WG 5.7 Conference on Advances in Production Management Systems, APMS 2013, held in University Park, PA, USA, in September 2013. The 133 revised full papers were carefully reviewed and selected for inclusion in the two volumes. They are organized in 4 parts: sustainable production, sustainable supply chains, sustainable services, and ICT and emerging technologies.

Beginning Application Lifecycle ManagementApress

This IBM® Redbooks® publication demonstrates, through a practical solution and step-by-step implementation instructions, how customers can use the IBM Rational® Application Lifecycle Management (ALM) portfolio to build and manage an integrated IBM WebSphere® Application. Building a business application (mobile and desktop) that uses WebSphere Application Server, IBM MQ, IBM Integration Bus (IIB), Business Process Management (BPM), Operational Decision Management (ODM), and Mobile. IBM Redpaper™ publication, Rapid deployment of integrated WebSphere solutions in your cloud, REDP-5132, is an extension to this IBM Redbooks publication. Using the same practical solution covered in this Redbooks publication, REDP-5132 demonstrates how the IBM PureApplication® System is a "logical extension" versus a "whole new world", covering PureApplication Patterns and the new PureApplication as a service on Softlayer. The intended audience for this book is architects, developers, administrators, and DevOps personnel.

This textbook is intended for SPI (software process improvement) managers and - searchers, quality managers, and experienced project and research managers. The papers constitute the research proceedings of the 16th EuroSPI (European Software Process Improvement, www.eurospi.net) conference held in Alcala (Madrid region), September 2–4, 2009, Spain. Conferences have been held since 1994 in Dublin, 1995 in Vienna (Austria), 1997 in Budapest (Hungary), 1998 in Gothenburg (Sweden), 1999 in Pori (Finland), 2000 in Copenhagen (Denmark), 2001 in Limerick (Ireland), 2002 in Nuremberg (G- many), 2003 in Graz (Austria), 2004 in Trondheim (Norway), 2005 in Budapest (Hungary), 2006 in Joensuu (Finland), 2007 in Potsdam (Germany), 2008 in Dublin (Ireland), and 2009 in Alcala (Spain). EuroSPI established an experience library (library.eurospi.net) which will be conti- ously extended over the next few years and will be made available to all attendees. EuroSPI also created an umbrella initiative for establishing a European Qualification Network in which different SPINs and national initiatives join mutually beneficial collaborations (ECQA – European Certification and Qualification Association, www.ecqa.org). With a general assembly during October 15–16, 2007 through Euro-SPI partners and networks, in collaboration with the European Union (supported by the EU L- nardo da Vinci Programme) a European certification association has been created (www.eu-certificates.org, www.ecqa.org) for the IT and services sector to offer SPI knowledge and certificates to industry, establishing close knowledge transfer links between research and industry.

The Practical, Comprehensive Guide to Applying Cybersecurity Best Practices and Standards in Real Environments In Effective Cybersecurity, William Stallings introduces the technology, operational procedures, and management practices needed for successful

cybersecurity. Stallings makes extensive use of standards and best practices documents that are often used to guide or mandate cybersecurity implementation. Going beyond these, he offers in-depth tutorials on the “how” of implementation, integrated into a unified framework and realistic plan of action. Each chapter contains a clear technical overview, as well as a detailed discussion of action items and appropriate policies. Stallings offers many pedagogical features designed to help readers master the material: clear learning objectives, keyword lists, review questions, and QR codes linking to relevant standards documents and web resources. Effective Cybersecurity aligns with the comprehensive Information Security Forum document “The Standard of Good Practice for Information Security,” extending ISF’s work with extensive insights from ISO, NIST, COBIT, other official standards and guidelines, and modern professional, academic, and industry literature.

- Understand the cybersecurity discipline and the role of standards and best practices
- Define security governance, assess risks, and manage strategy and tactics
- Safeguard information and privacy, and ensure GDPR compliance
- Harden systems across the system development life cycle (SDLC)
- Protect servers, virtualized systems, and storage
- Secure networks and electronic communications, from email to VoIP
- Apply the most appropriate methods for user authentication
- Mitigate security risks in supply chains and cloud environments

This knowledge is indispensable to every cybersecurity professional. Stallings presents it systematically and coherently, making it practical and actionable.

This IBM® Redbooks® publication uses the same practical solution and is an extension to Creating Integrated WebSphere Solutions using Application Lifecycle Management, SG24-8243-00. This paper demonstrates how to take an existing application that was built in a legacy environment, and bring that application to IBM PureApplication® Systems, using preferred practices for deployment and automation. The process is illustrated using a business scenario. This publication is intended for architects, developers, and administrators who want to know about the next generation of technology that modern IT organizations are moving rapidly towards: Application integration and systems development.

This book constitutes the refereed proceedings of two International Workshops held as parallel events of the 15th IFIP WG 12.5 International Conference on Artificial Intelligence Applications and Innovations, AIAI 2019, in Hersonissos, Crete, Greece, in May 2019: the 8th Mining Humanistic Data Workshop, MHDW 2019, and the 4th Workshop on 5G-Putting Intelligence to the Network Edge, 5G-PINE 2019. The 6 full papers and 4 short papers presented at MHDW 2019 were carefully reviewed and selected from 13 submissions; out of the 14 papers submitted to 5G-PINE 2019, 6 were accepted as full papers and 1 as short paper. The MHDW papers focus on the application of innovative as well as existing data matching, fusion and mining and knowledge discovery and management techniques (such as decision rules, decision trees, association rules, ontologies and alignments, clustering, filtering, learning, classifier systems, neural networks, support vector machines, preprocessing, post processing, feature selection, visualization techniques) to data derived from all areas of humanistic sciences, e.g., linguistic, historical, behavioral, psychological, artistic, musical, educational, social, and ubiquitous computing and bioinformatics. The papers presented at 5G-PINE focus on several innovative findings coming directly from modern European research in the area of modern 5G telecommunications infrastructures and related innovative services and cover a wide variety of technical and business aspects promoting options for growth and development.

Fully updated for Microsoft Dynamics AX 2012 R3! Dig into the architecture and internals of Microsoft Dynamics AX 2012 R3 - with firsthand insights from the team that designed and developed it. Deepen your knowledge of the underlying frameworks, components, and tools - and deliver custom ERP applications with the extensibility and performance your business needs. Useful for Microsoft Dynamics AX solution developers at all levels, this guide will provide max benefit to those who understand OOP, relational database, and Transact-SQL concepts. Gain best practices, patterns, and techniques to: Exploit interoperability with Microsoft Visual Studio tools Work with MorphX and avoid common pitfalls with X++ code Use Enterprise Portal with ASP.NET and SharePoint for rich web-based apps Simplify process automation with built-in workflow infrastructure See how the runtime implements security and configuration Design and customize the user experience Gain greater control over complex batch jobs Customize the prebuilt BI solution and reporting Test applications, publish services, and optimize performance

This book constitutes the refereed proceedings of the 13th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2016, held in Columbia, SC, USA, in July 2016. The 57 revised full papers presented were carefully reviewed and selected from 77 submissions. The papers are organized in the following topical sections: knowledge sharing, re-use and preservation; collaborative development architectures; interoperability and systems integration; lean product development and the role of PLM; PLM and innovation; PLM tools; cloud computing and PLM tools; traceability and performance; building information modeling; big data analytics and business intelligence; information lifecycle management; industry 4.0; metrics, standards and regulation; and product, service and systems.

Internet-based information systems, the second covering the large-scale integration of heterogeneous computing systems and data resources with the aim of providing a global computing space. Each of these four conferences encourages researcher to treat their respective topics within a framework that incorporates jointly (a) theory, (b) conceptual design and development, and (c) applications, in particular case studies and industrial solutions. Following and expanding the model created in 2003, we again solicited and selected quality workshop proposals to complement the more “archival” nature of the main conferences with research results in a number of selected and more “avant-garde” areas related to the general topic of Web-based distributed computing. For instance, the so-called Semantic Web has given rise to several novel research areas combining linguistics, information systems technology, and artificial intelligence, such as the modeling of (legal) regulatory systems and the ubiquitous nature of their usage. We were glad to see that ten of our earlier successful workshops (ADI, CAMS, EI2N, SWWS, ORM, OnToContent, MONET, SEMELS, COMBEK, IWSSA) re-appeared in 2008 with a second, third or even fourth edition, sometimes by alliance with other newly emerging workshops, and that no fewer than three brand-new independent workshops could be selected from proposals and hosted: ISDE, ODIS and Beyond SAWSDL. Workshop audiences productively mingled with each other and with those of the main conferences, and there was considerable overlap in authors.

Master breakthrough new approaches to enterprise software delivery that address today's radically new development and business challenges

- Helps development leaders strategically balance agility and efficiency in response to massive new global economic and technical trends.
- Offers specific, practical solutions for improving control, visibility, and efficiency.

• By Alan W. Brown -- IBM Distinguished Engineer, IBM Rational CTO, and one of the world's leading experts on high-value enterprise software delivery. Globalization, rapid technology churn, and massive economic shifts have made today's enterprise software delivery challenges radically different than those faced just three or four years ago. In this book, IBM Distinguished Engineer Alan W. Brown offers deep new insights into today's best approaches to enterprise software delivery. Brown guides decision-makers in choosing solutions that respond to their new challenges, and successfully anticipate what's coming next. He provides a compelling vision for 'software supply chains': one that can help software leaders create global software factories that successfully balance agility and efficiency. Brown illuminates today's new revolution in enterprise software delivery, focusing on key drivers for change, their impact on the day-to-day work of software engineers, and how enterprise software organizations are being reformed in response. He introduces the modern 'software factory' concept, addressing key trends including global outsourced teams, collaborative application lifecycle management, and cloud-based virtual infrastructures; Replete with examples, this informative, practical book will help organizations surface crucial issues they may have overlooked, and then identify and leverage the best new ways to deliver software. From start to finish, it offers powerful new opportunities to reduce costs, standardize processes, improve control and visibility, and become far more responsive to the business.

Interoperability: the ability of a system or a product to work with other systems or products without special effort from the user is a key issue in manufacturing and industrial enterprise generally. It is fundamental to the production of goods and services quickly and at low cost at the same time as maintaining levels of quality and customisation. Composed of over 50 papers, Enterprise Interoperability III ranges from academic research through case studies to industrial and administrative experience of interoperability. The international nature of the authorship continues to broaden. Many of the papers have examples and illustrations calculated to deepen understanding and generate new ideas. A concise reference to the state of the art in software interoperability, Enterprise Interoperability III will be of great value to engineers and computer scientists working in manufacturing and other process industries and to software engineers and electronic and manufacturing engineers working in the academic environment.

Software has become an essential enabler for science and the economy. Not only does it create new markets and the possibility of a more reliable, flexible and robust society, it also empowers our exploration of the world in ever increasing depth. However software often falls short of our expectations, with current methodologies, tools and techniques remaining insufficiently robust and reliable for constantly changing and evolving needs. This book presents papers from the 15th International Conference on New Trends in Intelligent Software Methodology Tools and Techniques (SoMeT 16), held in Larnaca, Cyprus, in September 2016. The SoMeT conference focuses on exploring the innovations, controversies and challenges facing the software engineering community, bringing together theory and experience to propose and evaluate solutions to software engineering problems with an emphasis on human-centric software methodologies, end-user development techniques, and emotional reasoning, for an optimally harmonized performance between the design tool and the user. The book is divided into six chapters covering the following areas: decision support systems; software methodologies and tools; requirement engineering; software for biomedicine and bioinformatics; software engineering models, and formal techniques for software representation; and intelligent software development and social networking. The book explores new trends and theories which illuminate the direction of developments in the field, and will be of interest to all in the software science community.

This book constitutes the refereed proceedings of the 40th International Conference on Current Trends in Theory and Practice of Computer Science, SOFSEM 2014, held in Nový Smokovec, Slovakia, in January 2014. The 40 revised full papers presented in this volume were carefully reviewed and selected from 104 submissions. The book also contains 6 invited talks. The contributions covers topics as: Foundations of Computer Science, Software and Web Engineering, as well as Data, Information and Knowledge Engineering and Cryptography, Security and Verification.

As the Web grows and expands into ever more remote parts of the world, the availability of resources over the Internet increases exponentially. Making use of this widely prevalent tool, organizations and individuals can share and store knowledge like never before. Cloud Technology: Concepts, Methodologies, Tools, and Applications investigates the latest research in the ubiquitous Web, exploring the use of applications and software that make use of the Internet's anytime, anywhere availability. By bringing together research and ideas from across the globe, this publication will be of use to computer engineers, software developers, and end users in business, education, medicine, and more.

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.

Ramp up your software development with this comprehensive resource Microsoft's Application Lifecycle Management (ALM) makes software development easier and now features support for iOS, MacOS, Android, and Java development. If you are an application developer, some of the important factors you undoubtedly consider in selecting development frameworks and tools include agility, seamless collaboration capabilities, flexibility, and ease of use. Microsoft's ALM suite of productivity tools includes new functionality and extensibility that are sure to grab your attention. Professional Application Lifecycle Management with Visual Studio 2013 provides in-depth coverage of these new capabilities. Authors Mickey Gousset, Martin Hinshelwood, Brian A. Randell, Brian Keller, and Martin Woodward are Visual Studio and ALM experts, and their hands-on approach makes adopting new ALM functionality easy. Streamline software design and deployment with Microsoft tools and methodologies Gain a practical overview of ALM with step-by-step guides and reference material Case studies illustrate specific functionality and provide in-depth instruction Use new capabilities to support iOS, MacOS, Android and Java development Discover this comprehensive solution for modeling, designing, and coordinating enterprise software deployments Over 100 pages of new content, forward-compatible with new product releases Professional Application Lifecycle Management with Visual Studio 2013 provides a complete framework for using ALM to streamline software design and deployment processes using well-developed Microsoft tools and methodologies. Professional Application Lifecycle Management with Visual Studio 2013 is your guide to make use of newly-available ALM features to take your enterprise software development to the next level.

This book constitutes the refereed proceedings of the 12th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2015, held in Doha, Qatar, in October 2015. The 79 revised full papers were carefully reviewed and selected from 130 submissions. The papers are organized in the following topical sections: smart products, assessment approaches, PLM maturity, building information modeling (BIM), languages and ontologies, product service systems, future factory, knowledge creation and management, simulation and virtual environments, sustainability and systems improvement, configuration and engineering change, education studies, cyber-physical and smart systems, design and integration issues, and PLM processes and applications.

You can have the best coders in the world working in your teams, but if your project management isn't up to scratch, your

project is almost certain to be delayed, to come in over budget, and in some cases to fail entirely. By taking precise control of your application development process, you can make changes, both large and small, throughout your project's life cycle that will lead to better-quality finished products that are consistently delivered on time and within budget. Application lifecycle management (ALM) is an area of rapidly growing interest within the development community. Because its techniques allow you to deal with the process of developing applications across many areas of responsibility and across many different disciplines, its effects on your project can be wide ranging and pronounced. It is a project management tool that has practical implications for the whole team—from architects to designers, from developers to testers. This book focuses on the most powerful ALM tool available for the Microsoft .NET Framework: Visual Studio Team System (VSTS). It demonstrates the key concepts and techniques of ALM and illustrates how they can be achieved using the tools VSTS provides in a clear succinct style. After reading the book, you will understand how VSTS can be used to generate continuous meaningful reporting on your project's health for the decision makers on your team as well as for your project's sponsors.

This book discusses the evolution of future-generation technologies through the Internet of things, bringing together all the related technologies on a single platform to offer valuable insights for undergraduate and postgraduate students, researchers, academics and industry practitioners. The book uses data, network engineering and intelligent decision-support system-by-design principles to design a reliable IoT-enabled ecosystem and to implement cyber-physical pervasive infrastructure solutions. It takes readers on a journey that begins with understanding the insight paradigm of IoT-enabled technologies and how it can be applied. It walks readers through engaging with real-time challenges and building a safe infrastructure for IoT-based, future-generation technologies. The book helps researchers and practitioners to understand the design architecture through IoT and the state of the art in IoT countermeasures. It also highlights the differences between heterogeneous platforms in IoT-enabled infrastructure and traditional ad hoc or infrastructural networks, and provides a comprehensive discussion on functional frameworks for IoT, object identification, IoT domain model, RFID technology, wearable sensors, WBAN, IoT semantics, knowledge extraction, and security and privacy issues in IoT-based ecosystems. Written by leading international experts, it explores IoT-enabled insight paradigms, which are utilized for the future benefit of humans. It also includes references to numerous works. Divided into stand-alone chapters, this highly readable book is intended for specialists, researchers, graduate students, designers, experts, and engineers involved in research on healthcare-related issues.

Beginning Application Lifecycle Management is a guide to an area of rapidly growing interest within the development community: managing the entire cycle of building software. ALM is an area that spans everything from requirements specifications to retirement of an IT-system or application. Because its techniques allow you to deal with the process of developing applications across many areas of responsibility and across many different disciplines, the benefits and effects of ALM techniques used on your project can be wide-ranging and pronounced. In this book, author Joachim Rossberg will show you what ALM is and why it matters. He will also show you how you can assess your current situation and how you can use this assessment to create the road ahead for improving or implementing your own ALM process across all of your team's development efforts. Beginning Application Lifecycle Management can be implemented on any platform. This book will use Microsoft Team Foundation Server as a foundation in many examples, but the key elements are platform independent and you'll find the book written in a platform agnostic way. In this book, you'll learn: What application lifecycle management is and why it matters. The steps necessary for implementing an ALM process. Tips and techniques you can use to gain control of your development efforts. How to implement an agile framework into your ALM process How to achieve traceability and visibility in your projects How to automate your ALM process

The Complete Business Process Handbook is the most comprehensive body of knowledge on business processes with revealing new research. Written as a practical guide for Executives, Practitioners, Managers and Students by the authorities that have shaped the way we think and work with process today. It stands out as a masterpiece, being part of the BPM bachelor and master degree curriculum at universities around the world, with revealing academic research and insight from the leaders in the market. This book provides everything you need to know about the processes and frameworks, methods, and approaches to implement BPM. Through real-world examples, best practices, LEADing practices and advice from experts, readers will understand how BPM works and how to best use it to their advantage. Cases from industry leaders and innovators show how early adopters of LEADing Practices improved their businesses by using BPM technology and methodology. As the first of three volumes, this book represents the most comprehensive body of knowledge published on business process. Following closely behind, the second volume uniquely bridges theory with how BPM is applied today with the most extensive information on extended BPM. The third volume will explore award winning real-life examples of leading business process practices and how it can be replaced to your advantage. Learn what Business Process is and how to get started Comprehensive historical process evolution In-depth look at the Process Anatomy, Semantics and Ontology Find out how to link Strategy to Operation with value driven BPM Uncover how to establish a way of Thinking, Working, Modelling and Implementation Explore comprehensive Frameworks, Methods and Approaches How to build BPM competencies and establish a Center of Excellence Discover how to apply Social BPM, Sustainable and Evidence based BPM Learn how Value & Performance Measurement and Management Learn how to roll-out and deploy process Explore how to enable Process Owners, Roles and Knowledge Workers Discover how to Process and Application Modelling Uncover Process Lifecycle, Maturity, Alignment and Continuous Improvement Practical continuous improvement with the way of Governance Future BPM trends that will affect business Explore the BPM Body of Knowledge

Integrate Agile ALM and DevOps to Build Better Software and Systems at Lower Cost Agile Application Lifecycle Management (ALM) is a comprehensive development lifecycle that embodies essential Agile principles and guides all

activities needed to deliver successful software or systems. Agile ALM embodies Agile Configuration Management (CM) and much more. Flexible and robust, it offers “just enough process” to get the job done and leverages DevOps to enhance interactions among all participants. Agile Application Lifecycle Management offers practical advice and strategies for implementing Agile ALM in your complex environment. Leading experts Bob Aiello and Leslie Sachs show how to fully leverage Agile benefits without sacrificing structure, traceability, or repeatability. You’ll find realistic guidance for managing source code, builds, environments, change control, releases, and more. The authors help you support Agile in organizations that maintain traditional practices; conventional ALM systems; or siloed, non-Agile teams. They also show how to scale Agile ALM to large or distributed teams, and to environments from cloud to mainframe. Coverage includes Understanding key concepts underlying modern application and system lifecycles Creating your best processes for developing your most complex software and systems Automating build engineering, continuous integration, and continuous delivery/deployment Enforcing Agile ALM controls without compromising productivity Creating effective IT operations that align with Agile ALM processes Gaining more value from testing and retrospectives Making ALM work in the cloud, and across the enterprise Preparing for the future of Agile ALM Today, you need maximum control, quality, and productivity, and this guide will help you achieve those by using Agile ALM, CM, and DevOps together.

Downloadable PDF (ISBN 9780113312757) also available

Managing IT like a business demands integrated and systematic business and IT insight – the kind of integration and systematic insight that SAP has spent the last 35 years helping the world’s leading companies achieve. Best-run businesses use SAP® solutions to automate key business processes so they can close the gap between strategy and execution. Best-run businesses drive clarity into their organizations by gaining insight for improved performance, efficiency for optimized operations, and flexibility to adapt quickly to changing circumstances. Like best-run businesses, best-run IT organizations are able to optimize operations, maximize innovation, and adjust rapidly to evolving business needs. Their IT management solutions help them better understand themselves and their customers and make the best decisions in the face of challenging expectations and constraints. This book outlines SAP’s view on best-run IT. It will help orient you to our related solutions and provide you with ideas for driving clarity and business value in your IT organization.

Life cycle design is understood as "to develop" (to plan, to calculate, to define, to draw) a holistic concept for the entire life cycle of a product". Life cycle design means a one time planning during the concept phase of a product in which the pathway of a product over the entire life cycle is determined. So e.g. the planning of possible services for a product during its utilization phase, the way of material recycling, how and which parts can be reused, how the logistics for recycling will be organised or how the product can be used afterwards. So it is a conceptual pre-design of all later activities over the life cycle. By this understanding the book delivers a really holistic approach because before a product is physically made a life-long concept and utilization scenarios with closed material and information cycles have to be developed. This promotes a real "thinking in product (life) cycles". The book addresses professionals as well as researchers and students in the field of product life cycle management. Different methods in the field of product design, operation and recycling will be presented and finally merge to an integrated method of product life cycle design. Readers will benefit from the holistic approach which enables them to design successful products by the implementation of closed loop product life cycles.

BUILDING SECURE CARS Explores how the automotive industry can address the increased risks of cyberattacks and incorporate security into the software development lifecycle While increased connectivity and advanced software-based automotive systems provide tremendous benefits and improved user experiences, they also make the modern vehicle highly susceptible to cybersecurity attacks. In response, the automotive industry is investing heavily in establishing cybersecurity engineering processes. Written by a seasoned automotive security expert with abundant international industry expertise, *Building Secure Cars: Assuring the Automotive Software Development Lifecycle* introduces readers to various types of cybersecurity activities, measures, and solutions that can be applied at each stage in the typical automotive development process. This book aims to assist auto industry insiders build more secure cars by incorporating key security measures into their software development lifecycle. Readers will learn to better understand common problems and pitfalls in the development process that lead to security vulnerabilities. To overcome such challenges, this book details how to apply and optimize various automated solutions, which allow software development and test teams to identify and fix vulnerabilities in their products quickly and efficiently. This book balances technical solutions with automotive technologies, making implementation practical. *Building Secure Cars* is: One of the first books to explain how the automotive industry can address the increased risks of cyberattacks, and how to incorporate security into the software development lifecycle An optimal resource to help improve software security with relevant organizational workflows and technical solutions A complete guide that covers introductory information to more advanced and practical topics Written by an established professional working at the heart of the automotive industry Fully illustrated with tables and visuals, plus real-life problems and suggested solutions to enhance the learning experience This book is written for software development process owners, security policy owners, software developers and engineers, and cybersecurity teams in the automotive industry. All readers will be empowered to improve their organizations’ security postures by understanding and applying the practical technologies and solutions inside.

The present economic and social environment has given rise to new situations within which companies must operate. As a first example, the globalization of the economy and the need for performance has led companies to outsource and then to operate inside networks of enterprises such as supply chains or virtual enterprises. A second instance is related to environmental issues. The statement about the impact of industrial activities on the environment has led companies to revise processes, to save energy, to optimize transportation.... A last example relates to knowledge. Knowledge is

considered today to be one of the main assets of a company. How to capitalize, to manage, to reuse it for the benefit of the company is an important current issue. The three examples above have no direct links. However, each of them constitutes a challenge that companies have to face today. This book brings together the opinions of several leading researchers from all around the world. Together they try to develop new approaches and find answers to those challenges. Through the individual chapters of this book, the authors present their understanding of the different challenges, the concepts on which they are working, the approaches they are developing and the tools they propose. The book is composed of six parts; each one focuses on a specific theme and is subdivided into subtopics.

You can have the best coders in the world working in your teams, but if your project management isn't up to scratch, your project is almost certain to be delayed, to come in over budget, and in some cases to fail entirely. By taking precise control of your application development process, you can make changes, both large and small, throughout your project's life cycle that will lead to better-quality finished products that are consistently delivered on time and within budget. Application lifecycle management (ALM) is an area of rapidly growing interest within the development community. Because its techniques allow you to deal with the process of developing applications across many areas of responsibility and across many different disciplines, its effects on your project can be wide ranging and pronounced. It is a project management tool that has practical implications for the whole team—from architects to designers, from developers to testers. *Pro Application Lifecycle Management with Visual Studio 2012* focuses on the most powerful ALM tool available for the Microsoft .NET Framework: Visual Studio Team Foundation Server. It demonstrates the key concepts and techniques of ALM at first with a guide to the overall methodology, and then delves into architecture and testing—illustrating all of the concepts, tips and tricks using the tools TFS provides. The book serves as a complete guide to the ALM style—with no fluff and many relevant code samples and examples. After reading the book, you will understand how TFS can be used to generate continuous meaningful reporting on your project's health for the decision makers on your team as well as for your project's sponsors.

Inhaltsangabe: Introduction: Despite the widespread recognition that performance is important to the success of a project, many software products fail to respond fast enough to user requests or to handle a certain amount of parallel business transactions. This is because nowadays projects are result-oriented where the focus is on functionality to be implemented. Such projects do not pay high attention to application performance because it still does not have the particular importance that unit testing for example has. Moreover today's development models usually consider performance management only in a limited way within their lifecycle and often follow what is known as the fix it later approach. The fix it later approach concentrates on software correctness and defers performance considerations to the integration testing phase where additional hardware is added or a system is tuned when performance issues are detected. The problem of neglecting performance management is that performance issues often do not emerge until an application is put into production, where it is likely to suffer the consequences of a performance failure. The consequences of performance failures can be increased operational costs, increased development and hardware costs, and damaged customer relations. If severe performance issues are discovered during production, it may be too expensive to re-design a system or even impossible to add additional hardware in order to meet performance objectives. Such projects are likely to be canceled and their costs will be unrecoverable. To avoid such situations, performance management should be integrated into an application's lifecycle from the beginning. This means that performance objectives have to be defined early within a project and continually verified as an application evolves. Having performance management integrated from the beginning allows to reduce overall project risk and costs because performance issues can be spotted and corrected early in the lifecycle and even before end users are affected. Furthermore an application is extensively tested for its ability of reaching performance objectives before it is deployed to a production environment and exposed to real users. NovaTec GmbH is a company providing IT-services in the area of consulting, project management, software engineering, application architectures, provisioning, performance management, and process engineering. The competences of NovaTec are logically grouped in [...]

The Complete Guide to Managing Work Items and Workflow with IBM® Rational® ClearQuest® and IBM Rational Team Concert™ Work items are the lifeblood of software and hardware development. They tell development teams exactly who is doing what, which issues are resolved, which remain unresolved, and which products are impacted. In large, team-based projects, however, managing work items can be difficult. Now, two IBM Rational experts show how to simplify and improve every aspect of work item management with IBM Rational ClearQuest and the powerful and collaborative Jazz™-based products: IBM Rational Team Concert (RTC) and IBM Rational Quality Manager. Drawing on extensive experience with IBM customers, the authors tightly link theory with proven best practices, offering implementation guidance, detailed examples, and complete solutions. They present innovative solutions, introduce advanced customization techniques, and walk step-by-step through every phase of workflow development, from requirements through maintenance. They conclude with a full chapter of sample applications and solutions, ranging from Collaborative Application Lifecycle Management to SLAs. Coverage includes

Understanding work items and their elements Using work items for changes, tasks, activities, test plans, test cases, risks, builds, and promotion Implementing best practices for work item application planning, analysis, design, development, testing, deployment, and maintenance Describing workflows, including advanced dynamic workflows Incorporating roles in work items and using them to meet business needs Using ClearQuest packages and custom integrations, and making the most of Jazz platform integration technology Getting the most of out the CQ-ALM schema Implementing effective quality and performance metrics, SLAs, and governance Improving test management with IBM Rational Quality Manager work items Creating effective workflows for Scrum and other Agile projects

This handbook is a repository of state-of-the-art knowledge about enterprise resource planning (ERP) systems and applications. It presents cutting edge articles on ERP systems by leading researchers in the field from around the world. The articles discuss frontier areas of research in the field of ERP. They cover a wide range of topics concerned with ERP systems including their technology-related issues, their architecture, and their implementation. The book also presents case studies and practical examples in its final section to further clarify the concepts.

It is almost impossible to conceive of the concept and practical application of supply chain management (SCM) without linking it to the enabling power of today's information technologies. Building upon the foundations of the first edition, *Introduction to Supply Chain Management Technologies, Second Edition* details the software toolsets and suites driving integration in the areas of customer management, manufacturing, procurement, warehousing, and logistics. By investigating the breakthroughs brought about by the emergence of new Internet-based technologies in information, channel, customer, production, sourcing, and logistics management, the author provides new insights into the continuously emerging field of SCM. New in the Second Edition: New model of SCM Extended discussion of the concepts of lean, adaptive, and demand-driven supply chain technologies Customer experience management and social networking Fundamentals of computing and their enabling power Basics of today's ERP/supply chain business solutions Integrative software tools that allow for new levels of collaboration, flexibility, and performance The new edition expands on emerging technologies that have provided all forms of enterprises with the capability to continuously automate cost, redundancy, and variation out of the process; enhance information creation and visibility; and expand the peer-to-peer connectivity that allows people to network their tasks, ideas, and aspirations to produce a form of collective open-ended knowing, collaborating, and experiencing. The information presented builds an understanding of how today's technology-driven SCM provides new avenues to execute superlative, customer-winning value through the digital, real-time synchronization of productive

competencies, products, services, and logistics delivery capabilities with the priorities of an increasingly global business environment. Manufacturing plays a vital role in European economy and society, and is expected to continue as a major generator of wealth in the foreseeable future. A competitive manufacturing industry is essential for the prosperity of Europe, especially in the face of accelerating deindustrialisation. This book provides a broad vision of the future of manufacturing, analysed from a system-management viewpoint and with a special focus on ICT-related matters. Each contribution presents a complex and multidisciplinary research domain from a specific perspective. The first part of the book gives an overview on technology: past, present and future, while the following topics are introduced in the latter part of the book: - Product Lifecycle Management - Sustainable Products and Processes - Production Scheduling and Control - Benchmarking and Performance Measures - Industrial Services - Human Factors and Education in Manufacturing - Collaborative Engineering - Supply Chain Integration The book is intended to provoke debate, build consensus and stimulate creative discussion, leading to further novel research initiatives in the future.

This book constitutes the refereed post-conference proceedings of the 16th IFIP WG 5.1 International Conference on Product Lifecycle Management, PLM 2019, held in Moscow, Russia, in July 2019. The 38 revised full papers presented were carefully reviewed and selected from 63 submissions. The papers are organized in the following topical sections: 3D modelling and data structures; PLM maturity and industry 4.0; ontologies and semantics; PLM and conceptual design; knowledge and change management; IoT and PLM; integrating manufacturing realities; and integration of in-service and operation.

This volume constitutes the refereed proceedings of the 23rd EuroSPI conference, held in Graz, Austria, in September 2016. The 15 revised full papers presented together with 14 selected key notes and workshop papers were carefully reviewed and selected from 51 submissions. They are organized in topical sections on SPI and the ISO/IEC 29110 standard; communication and team issues in SPI; SPI and assessment; SPI in secure and safety critical environments; SPI initiatives; GamifySPI; functional safety; supporting innovation and improvement.

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